

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

INVENSAS CORPORATION and TESSERA	)	
ADVANCED TECHNOLOGIES, INC.,	)	
	)	
Plaintiffs,	)	No. 1:19-cv-00861-RGA
	)	
v.	)	
	)	
NVIDIA CORPORATION,	)	
	)	
Defendant.	)	

**REQUEST FOR INTERNATIONAL JUDICIAL ASSISTANCE (LETTER ROGATORY)**

The United States District Court for the District of Delaware presents its compliments to the Appropriate Judicial Authority of Taiwan, and requests international judicial assistance to obtain the production of documents and deposition testimony to be used before this Court in the above-captioned matter.

The Court requests the assistance described herein as necessary in the interests of justice. The assistance requested is that the Appropriate Judicial Authority of Taiwan compel the below-named third party to produce documents and give deposition testimony:

Taiwan Semiconductor Manufacturing Company Limited ("TSMC")  
No. 8, Li-Hsin Road VI, Hsinchu Science Park  
Hsinchu 300-78  
Taiwan, R.O.C.

Based on the representations made by Plaintiffs Invensas Corporation and Tessera Advanced Technologies, Inc. (collectively, "Plaintiffs"), this Court believes that TSMC is in possession of documents and has knowledge regarding material facts that are relevant to the above-captioned case.

## I. FACTS

The name of the action for which the discovery below is requested is *Invensas Corporation, et al. v. NVIDIA Corporation*, Case No. 1:19-cv-00861-RGA, in the United States District Court for the District of Delaware. The Plaintiffs in this action are Invensas Corporation and Tessera Advanced Technologies, Inc., (collectively “Plaintiffs”). The Defendant in this action is NVIDIA Corporation (“NVIDIA”), 2788 San Tomas Expressway, Santa Clara, California 95051.

This is a proceeding for patent infringement under the patent laws of the United States of America, 35 U.S.C. § 1 et seq., including 35 U.S.C. § 271, based on the Complaint filed by Plaintiffs on May 8, 2019. The Complaint alleges that NVIDIA infringes U.S. Patent Nos. 6,232,231 (“the ‘231 patent”), 6,849,946 (“the ‘946 patent”), 7,064,005 (“the ‘005 patent”), 6,317,333 (“the ‘333 patent”), and 5,666,046 (“the ‘046 patent”). The accused products include NVIDIA’s semiconductor devices and packages, and products containing the same.

Plaintiffs allege that NVIDIA is a fabless semiconductor company that relies on third party foundries and independent assembly and packaging subcontractors outside the United States to make the accused semiconductor devices packages (“Accused NVIDIA Products”). Plaintiffs allege that, during most or all of the time period relevant to this lawsuit, TSMC served as NVIDIA’s primary foundry for the Accused NVIDIA Products. Therefore, Plaintiffs believe that TSMC possesses unique documents and information concerning the fabrication, assembly, packaging, and/or testing of the Accused NVIDIA Products. Accordingly, TSMC is believed to be among the most knowledgeable about, and to have unique documents in its possession, custody, and control concerning, NVIDIA’s infringement of one or more of the patents asserted in this action.

## **II. DISCOVERY REQUESTED**

It is respectfully requested that a judicial authority of Taiwan order TSMC to produce copies of documents and other property as described in Attachment 1. It is additionally requested that a judicial authority of Taiwan compel TSMC to make available a suitable representative to provide testimony regarding the deposition topics set forth in Attachment 2. The requested documents and deposition testimony will provide important evidence related to Plaintiffs' patent infringement allegations.

With regard to the production of documents identified in Attachment 1, in the event that any document called for by these requests is withheld in whole or in part on the basis of any applicable privilege, it is requested that TSMC furnish a privilege log that identifies each document for which any privilege is claimed and that provides, with respect to each document, the following information:

- (a) the date the document was created and last modified;
- (b) the subject matter of the document;
- (c) the person(s) who prepared the documents;
- (d) all persons to whom the document was distributed, shown, or explained;
- (e) the document's present custodian; and
- (f) the nature of the privilege asserted.

Additionally, it is respectfully requested that each document described in Attachment 1 be produced along with all non-identical drafts thereof in their entirety, without abbreviation or redaction, as maintained in the ordinary course of business.

With regard to the deposition, it is requested that an examiner or other appropriate judicial officer of Taiwan direct that the witness be duly sworn in accordance with the applicable

procedures of Taiwan, and that the testimony be taken and transcribed by a qualified court reporter and videographer chosen by Plaintiffs' representatives. It is further requested that:

(a) TSMC be required to designate one or more officers, directors, managing agents, employees, or other person(s) to testify on behalf of TSMC;

(b) TSMC be required to identify the person or persons who will testify pursuant to this Request and the matter or matters about which each person will testify;

(c) the examination be conducted orally;

(d) the parties' representatives or their designees, attorneys, their interpreters, and a stenographer be permitted to be present during the examination;

(e) there be excluded from the examination, if permitted under the laws of Taiwan, all persons other than those individuals permitted under (d) and any official of the court of Taiwan required to be present during such proceedings;

(f) the stenographer be permitted to record verbatim the examination;

(g) the stenographer be permitted to record the examination by audiovisual means;

(h) the person conducting the examination be permitted to ask questions regarding the topics in Attachment 2;

(i) ten and a half (10.5) hours be allotted for the examination of each witness who requires a translator, and seven (7) hours be allotted for the examination of each English speaking witness;

(j) the witnesses be examined as soon as practicable; and

(k) the documents and property requested in Attachment 1 be provided to Plaintiffs no later than five (5) business days before the deposition at a convenient location to be determined.

Finally, it is requested that the individuals identified below be furnished as soon as practicable with a copy of the executed Letter Rogatory, and be informed as soon as practicable of the time and place for the examination of the witnesses:

Brian E. Farnan  
FARNAN LLP  
919 North Market Street,  
12th Floor  
Wilmington, DE 19801  
Telephone: (302) 777-0300  
Email: bfarnan@farnanlaw.com

Denise S. Kraft  
DLA PIPER LLP (US)  
1201 North Market Street, Suite 2100  
Wilmington, DE 19801-1147  
Telephone: (302) 468-5700  
Email: denise.kraft@dlapiper.com

### **III. URGENCY**

A response is requested by January 31, 2020, or as soon as practicable. Expedient treatment of this request will allow the parties to obtain and review the produced documents and obtain testimony before the cutoff of fact discovery in this matter.

### **IV. RECIPROCITY**

The United States District Court for the District of Delaware is willing to provide similar assistance to judicial authorities of Taiwan.

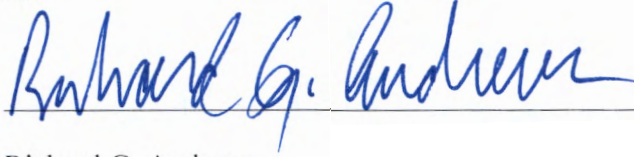
### **V. REIMBURSEMENT FOR COSTS**

Plaintiffs will bear all fees and costs. Please inform counsel for Plaintiffs if the costs are expected to exceed US \$5,000.00. Bills may be sent to:

Invensas Corporation  
c/o Brian E. Farnan  
FARNAN LLP  
919 North Market Street,  
12th Floor  
Wilmington, DE 19801

Telephone: (302) 777-0300  
Email: bfarnan@farnanlaw.com

Signed by:

A handwritten signature in blue ink, reading "Richard G. Andrews", is written over a horizontal line.

Richard G. Andrews  
United States District Judge  
J. Caleb Boggs Federal Building  
844 N. King Street  
Unit 9  
Room 6325  
Wilmington, DE 19801-3555

Signed in Wilmington, Delaware, this 15 day of November, 20 19

[Affix seal of court below:]

## **ATTACHMENT 1**

### **DEFINITIONS**

1. “Document(s)” means information printed, stored, or recorded in any manner or medium, and includes electronically stored information, writings, drawings, graphs, charts, photographs, and other data compilations from which information can be obtained.
2. The term “NVIDIA” means NVIDIA Corporation and its wholly-owned subsidiaries, and all of its predecessors, successors, parents, subsidiaries and affiliates.
3. The term “You” means Taiwan Semiconductor Manufacturing Company Limited (“TSMC”), and all of its predecessors, successors, parents, subsidiaries, affiliates, directors, officers, agents, representatives, consultants, and attorneys, and any persons that are acting or have acted on its behalf.
4. The term “Accused NVIDIA Product(s)” means any product comprising an NVIDIA graphics processing unit (“GPU”) or system-on-chip (“SoC”) that was fabricated for NVIDIA using TSMC’s 40nm, 28nm, 20nm, or 16nm technology node, including without limitation the following NVIDIA GPU and SoC product families: GT215, GT216, GT218, GF100, GF104, GF106, GF108, GF110, GF114, GF116, GF117, GF118, GF119, GK104, GK106, GK107, GK110, GK208, GK210, GM107, GM108, GM200, GM204, GM206, GP100, GP102, GP104, GP106, GV100, AP20 (T20), T30, T114 (T35), T124, T132, T148, T186, T210, and NX.
5. The term “Accused NVIDIA CoWoS Product(s)” means any NVIDIA GPU or SoC that was manufactured using TSMC’s Chip-on-Wafer-on-Substrate (“CoWoS”) technology, or any substantially similar manufacturing process wherein multiple die (*e.g.*, processor and

memory) are delivered in a single package, including without limitation the GP100 and GV100 product families.

### INSTRUCTIONS

1. These instructions shall be deemed to seek production of documents and things as of the date hereof and to the full extent of the United States Federal Rules of Civil Procedure.

2. In producing documents and things requested, you shall furnish all documents and things known or available to you upon reasonable investigation and inquiry, and within your possession, custody, or control, wherever located, regardless of whether such documents or things are possessed directly by you or by any of your agents, consultants, officers, employees, attorneys, representatives, or those acting on your behalf.

3. If production of any document is withheld on a basis of a claim of privilege, each withheld document shall be separately identified in a privileged document list. The privileged document list must identify each document separately, specifying for each document at least: (i) the date the information was created or communicated; (ii) author(s)/sender(s); (iii) all recipient(s); and (iv) the general subject matter contained in the document. The sender(s) and recipient(s) shall be identified by position and entity (corporation or firm, etc.) with which they are employed or associated. If the sender or the recipient is an attorney or a foreign patent agent, he or she shall be so identified. The type of privilege claimed must also be stated, together with a certification that all elements of the claimed privilege have been met and have not been waived with respect to each document.

4. If any request is objected to as overly broad or unduly burdensome, produce those documents and/or things which are unobjectionable and specifically identify the respect in which the request is allegedly overly broad or burdensome, respectively.



5. If a document or thing was but is no longer in your possession, custody, or control, or no longer exists, state whether it (i) is missing or lost, (ii) has been destroyed, (iii) has been transferred, voluntarily or involuntarily, to others, or (iv) has been otherwise disposed of. In each instance of such document or thing, please (i) explain the circumstances surrounding and authorization for the unavailability, destruction, or disposition thereof; (ii) state the date or approximate date thereof; (iii) state the name and title of the author(s), sender(s), and recipient(s) thereof; and (iv) state the name(s) and address(es) of all persons having knowledge regarding the unavailability, destruction or disposition thereof.

6. All questions regarding the meaning or interpretation of these requests should be directed to counsel for Plaintiffs.

### **REQUESTS FOR PRODUCTION**

#### **REQUEST FOR PRODUCTION NO. 1:**

Documents sufficient to identify each Accused NVIDIA Product that You fabricated, manufactured, packaged, assembled, and/or tested, in whole or in part, from 2010 to the present.

#### **REQUEST FOR PRODUCTION NO. 2:**

Documents sufficient to show the past and present production volume for each Accused NVIDIA Product identified in response to Request for Production No. 1.

#### **REQUEST FOR PRODUCTION NO. 3:**

Documents sufficient to show the processes used to fabricate, manufacture, assemble, package and/or test each Accused NVIDIA Product, including:

- Step-by-step manufacturing process flows and corresponding recipes at each step;
- Location, composition, and thickness of any material that is deposited on, patterned, or removed from the semiconductor device;

- The manner in which dummy structures are laid out in each metallization layer, and any design rules relating to the use of the dummy metal;
- Planarity of each layer of material within the finished semiconductor device and any steps used to improve planarity, including chemical mechanical polishing or planarization;
- Damascene or copper damascene processes;
- The electrical connections between each portion of the semiconductor device;
- The design, function, structure, and operation of any reference voltage circuit; and
- The geographical location and specific facility and product line number where the manufacturing process is performed.

**REQUEST FOR PRODUCTION NO. 4:**

Documents sufficient to show the complete step-by-step process for manufacturing the Accused NVIDIA CoWoS Products, including but not limited to process flows, recipes, run cards, process routing, process flow routing, routing cards, flow sheets, flow cards, routing processes, and comparable files, reports, and specifications.

**REQUEST FOR PRODUCTION NO. 5:**

Documents sufficient to describe, with respect to the manufacture of each Accused NVIDIA CoWoS Product, any step that includes grinding and/or polishing a surface of a wafer.

**REQUEST FOR PRODUCTION NO. 6:**

Final versions of the schematics for each reference voltage reference circuit used in each Accused NVIDIA Product.

**REQUEST FOR PRODUCTION NO. 7:**

Documents sufficient to show cross sectional, bevel, and top-view images of each Accused NVIDIA Product.

**REQUEST FOR PRODUCTION NO. 8:**

Documents sufficient to show any contractual relationships or agreements between You and NVIDIA regarding any of the Accused NVIDIA Products.

**REQUEST FOR PRODUCTION NO. 9:**

Documents sufficient to show NVIDIA's involvement in and/or control over the design of the Accused NVIDIA Products.

**REQUEST FOR PRODUCTION NO. 10:**

Documents sufficient to show and describe the process by which each Accused NVIDIA Product is exported from Taiwan including, but not limited to, the destinations to which those products are exported, the carriers used to export those products, and the terms on which those products are exported.

## **ATTACHMENT 2**

### **DEFINITIONS AND INSTRUCTIONS**

The definitions and instructions set forth in Attachment 1 are incorporated by reference.

### **TOPICS**

1. Each Accused NVIDIA Product that You fabricated, manufactured, packaged, assembled, and/or tested, in whole or in part, from 2010 to the present.
2. The past and present production volume for each Accused NVIDIA Product identified in response to Request for Production No. 1.
3. The processes used to fabricate, manufacture, assemble, package, and/or test each Accused NVIDIA Product, including:
  - Step-by-step manufacturing process flows and corresponding recipes at each step;
  - Location, composition, and thickness of any material that is deposited on, patterned, or removed from the semiconductor device;
  - The manner in which dummy structures are laid out in each metallization layer, and any design rules relating to the use of the dummy metal;
  - Planarity of each layer of material within the finished semiconductor device and any steps used to improve planarity, including chemical mechanical polishing or planarization;
  - Damascene or copper damascene processes;
  - The electrical connections between each portion of the semiconductor device;
  - The design, function, structure, and operation of any reference voltage circuit; and
  - The geographical location and specific facility and product line number where the manufacturing process is performed.

4. The complete step-by-step process for manufacturing the Accused NVIDIA CoWoS Products, including but not limited to process flows, recipes, run cards, process routing, process flow routing, routing cards, flow sheets, flow cards, routing processes, and comparable files, reports, and specifications.

5. With respect to the manufacture of each Accused NVIDIA CoWoS Product, any step that includes grinding and/or polishing a surface of a wafer.

6. The schematics for each reference voltage reference circuit used in each Accused NVIDIA Product.

7. The design, structure, and layout of each Accused NVIDIA Product.

8. Any contractual relationships or agreements between You and NVIDIA regarding any of the Accused NVIDIA Products.

9. NVIDIA's involvement in and/or control over the design of the Accused NVIDIA Products.

10. The process by which each Accused NVIDIA Product is exported from Taiwan, including but not limited to the destinations to which those products are exported, the carriers used to export those products, and the terms on which those products are exported.

11. The identification of all documents relevant to the topics above.

12. The authenticity, source, record-keeping practices, and meaning of the documents produced in response to these requests.

13. Facts and circumstances concerning any dissemination, distribution, or disclosure, whether public or otherwise, of any document produced in response to these requests.

14. Your search for and collection of documents responsive to these requests.

15. The identification of all persons involved in or having knowledge of the topics above.

**ATTACHMENT 3**

**PROTECTIVE ORDER**

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

INVENSAS CORPORATION and TESSERA	)	
ADVANCED TECHNOLOGIES, INC.,	)	
	)	
Plaintiffs,	)	C.A. No. 1:19-cv-00861-RGA
	)	
v.	)	
	)	JURY TRIAL DEMANDED
NVIDIA CORPORATION,	)	
	)	
Defendant.	)	
_____	)	

~~[PROPOSED]~~ STIPULATED PROTECTIVE ORDER

WHEREAS, Plaintiffs Invensas Corporation and Tessera Advanced Technologies, Inc. and Defendant NVIDIA Corporation, hereafter referred to as “the Parties,” believe that certain information that is or will be encompassed by discovery demands by the Parties involves the production or disclosure of trade secrets, confidential business information, or other proprietary information;

WHEREAS, the Parties seek this Protective Order (“Order”) limiting the disclosure of Confidential Information in accordance with Federal Rule of Civil Procedure 26(c);

THEREFORE, it is hereby stipulated among the Parties and ORDERED that:

**DEFINITIONS**

1. The term “**Action**” means *Invensas Corp. v. NVIDIA Corp.*, C.A. No. 1:19-CV-00861, United States District Court for the District of Delaware.
2. The term “**CONFIDENTIAL**” as it pertains to the designation of Protected Materials means Protected Materials for which any Party or Third Party (or its counsel) believes in



good faith that the unrestricted disclosure of such information and/or Protected Materials could be potentially prejudicial to the business or operation of such party.

3. The term “**Designated Material**” means Protected Material that has been designated as “CONFIDENTIAL,” “RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY,” or “HIGHLY CONFIDENTIAL – SOURCE CODE.”
4. The term “**HIGHLY CONFIDENTIAL – SOURCE CODE**” as it pertains to the designation of Protected Materials means Protected Material that constitutes or contains, in whole or in part, any Source Code.
5. The term “**Outside Consultant or Expert**” means a person with specialized knowledge or experience in a matter pertinent to the litigation who (1) has been retained by a Party or its counsel to serve as an expert witness or as a consultant in this action, (2) is not a current or past employee of a Party or a current employee or contractor of a Party’s competitor, and (3) at the time of retention, is not anticipated to become an employee of a Party or of a Party’s competitor. The term “contractor” does not include litigation consulting or serving as an expert witness or consultant in connection with a legal proceeding or patent office proceeding.
6. The term “**Outside Counsel**” means outside counsel of record in this Action for the Parties, as well as partners, associates, and employees of such counsel who are assigned to and reasonably necessary to assist such counsel in the litigation of this Action.
7. The term “**Producing Party**” means any Party or Non-Party who produces, discloses or generates Protected Material in response to discovery this Action.
8. The term “**Professional Vendors**” means any persons or entities that provide litigation support services and their employees and subcontractors, including court reporters and videographers, graphics or design services, translation services, jury or trial consulting

services, mock jurors that have been retained specifically for the purpose of trial preparation, and photocopy, document imaging, and database services retained by Outside Counsel and reasonably necessary to assist Outside Counsel with the litigation of this Action, and who have agreed to be bound by the Protective Order in this case.

9. The term “**Protected Material**” means any document, information or material that constitutes or includes, in whole or in part, confidential or proprietary information or trade secrets of the Party or a Third Party to whom the Party reasonably believes it owes an obligation of confidentiality with respect to such document, information or material. Protected Material may include: (a) all documents, electronically stored information, and/or things as defined by the Federal Rules of Civil Procedure; (b) all deposition testimony, or documents marked as exhibits or for identification in depositions; (c) pretrial pleadings, exhibits to pleadings and other court filings; (d) affidavits; and (e) stipulations. All copies, reproductions, extracts, digests and complete or partial summaries prepared from any Protected Material shall also be considered Protected Material and treated as such under this Order.
10. The term “**Receiving Party**” means any Party who receives Protected Material of the other Party or a Non-Party.
11. The term “**RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY**” as it pertains to the designation of Protected Materials means Protected Materials produced for or disclosed in connection with this Action that is any one of the following: trade secrets, pricing information, financial data, license agreements and associated information, sales or marketing forecasts or plans, business plans, sales, licensing, or marketing strategy, product development information, engineering documents, testing documents, employee information, non-public information of similar competitive and business sensitivity, or

other sensitive information qualifying for protection under standards developed pursuant to Fed. R. Civ. P. 26(c), whether embodied in physical objects, documents, or the factual knowledge of persons; information protected by any federal, Delaware, or other privacy statute; information protected by an existing contractual obligation requiring the Producing Party or Third Party to maintain the confidentiality of the information; or extremely sensitive confidential information or items, disclosure of which to another Party or Third Party would create a substantial risk of serious harm that could not be avoided by less restrictive means.

12. The term “**Source Code**” means any native electronic graphic database systems (GDS) layout files including GDS, GDSII, OASIS or Gerber files, any code, scripts, assembly, binaries, firmware, object code, source code, source code or object code listings, Hardware Description Language (HDL) or Register Transfer Level (RTL) files, files containing source code in C, C++, Java, assembler, VHDL, Verilog, and other similar programming languages, “make” and “build” files, link files, scripts, and other human-readable text files used in the generation and/or building of software directly executed on a microprocessor, microcontroller, or digital signal processor (DSP), any human-readable programming language text that defines software, firmware, or electronic hardware descriptions, any net lists and any native circuit schematics, which are maintained confidentially by the Producing Party.
13. The term “**Source Code Qualified Persons**” means Outside Counsel, any Outside Consultant or Expert subject to the requirements of Paragraph 21, Professional Vendors (excluding jury or trial consulting services and mock jurors), and the Court and its personnel.

14. The term “**Third Party**” means any natural person, partnership, corporation, association, or other legal entity not named as a Party to this Action. Nothing in this Order should be construed as prohibiting a Non-Party from seeking additional protection.

### **GENERAL RULES**

15. **MANNER OF DESIGNATION.**

- A. Protected Material shall be designated by the Party producing it by affixing a legend or stamp on such document, information or material as follows: “CONFIDENTIAL,” “RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY,” or “HIGHLY CONFIDENTIAL – SOURCE CODE” shall be placed clearly on each page of the Protected Material (except native documents and deposition and hearing transcripts) for which such protection is sought.
- B. For natively produced Protected Material, the filename shall be the production number and the confidentiality designation shall be placed in the filename of each such natively produced document, and the slip sheet corresponding to the Protected Material shall include the production number and the confidentiality designation. In the event the Receiving Party of natively produced Protected Material chooses to print or otherwise make a copy of such materials, the printout or copy must be marked with the confidentiality designation.
- C. For deposition transcripts, Parties or testifying persons or entities may designate depositions and other testimony (or portions thereof) with the appropriate designation by indicating on the record at the time the testimony is given or by sending written notice of how the transcript or portions thereof are designated within 30 days of receipt of the final transcript of the testimony. If no indication on the record is made, all information disclosed during a deposition shall be deemed “RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY” until the time within which it may be appropriately designated as provided for herein has passed. Any Protected Material that is used in the taking of a deposition shall remain subject to the provisions of this Protective Order, along with the transcript pages of the deposition dealing with such Protected Material. The court reporter shall be informed of this Protective Order and shall be required to operate in a manner consistent with this Protective Order. In the event the deposition is videotaped, the original and all copies of the videotape (or portions thereof) shall be marked by the video technician to indicate that the contents of the videotape are subject to this Protective Order, substantially along the lines of “This videotape may contain confidential testimony used in this case and is not to be viewed or the contents thereof to be displayed or revealed except pursuant to the terms of the operative Protective Order in this matter or pursuant to written stipulation of the parties.” The labels “CONFIDENTIAL,” “RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY,” or “HIGHLY CONFIDENTIAL – SOURCE CODE” shall be placed on the cover page of the transcript (if not already present on the cover page of the transcript when received from the court

reporter) by each attorney receiving a copy of the transcript after that attorney receives notice of the designation of some or all of that transcript.

16. **DESIGNATION PRIOR TO ISSUANCE OF PROTECTIVE ORDER.** Any document produced or made available for inspection before issuance of this Order with the designation “CONFIDENTIAL,” “RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY” or “HIGHLY CONFIDENTIAL – SOURCE CODE” shall receive the same treatment as if designated as such under this Order, unless and until such document is re-designated to have a different classification under this Order.
17. **TIMING OF DESIGNATION.** A designation of “CONFIDENTIAL,” “RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY,” or “HIGHLY CONFIDENTIAL – SOURCE CODE” may be made at any time. Inadvertent or unintentional production of documents, information or material that has not been designated as Designated Material shall not be deemed a waiver in whole or in part of a claim for confidential treatment. Any Party that inadvertently or unintentionally produces Protected Material without designating it as Designated Material may request destruction of that Protected Material by notifying the recipient(s), as soon as reasonably possible after the Producing Party becomes aware of the inadvertent or unintentional disclosure, and providing replacement Protected Material that is properly designated. The recipient(s) shall then destroy all copies of the inadvertently or unintentionally produced Protected Materials and any documents, information or material derived from or based thereon.
18. **PERSONS WITH ACCESS TO PROTECTED MATERIALS DESIGNATED “CONFIDENTIAL.”** Access to, and disclosure of Protected Material designated “CONFIDENTIAL” may be disclosed only to the following persons:
  - A. Outside Counsel;



- B. Up to and including 2 in-house counsel (and in-house legal support staff) for the Parties who either have responsibility for making decisions dealing directly with the litigation of this Action, or who are assisting outside counsel in the litigation of this Action provided that before access is given, the in-house counsel has completed the Undertaking attached as Appendix A hereto and the same is served upon the Producing Party at least 10 days before access to the Protected Material is to be given to that in-house counsel. The Producing Party has 10 days to object by notifying the Receiving Party in writing that it objects to disclosure of Protected Material to the in-house counsel. If at the end of period there is no objection, the in-house counsel is deemed approved. No Protected Material shall be disclosed to such in-house counsel until after the expiration of the foregoing notice period and resolution of any objection. The Parties agree to promptly confer and use good faith to resolve any such objection. If the Parties are unable to resolve any objection, the Producing Party may file a motion with the Court within 7 days of notifying the Receiving Party in writing that it objects to disclosure of Protected Material to the in-house counsel, or within such other time as the Parties may agree, seeking a protective order with respect to the proposed disclosure. The Producing Party shall have the burden of proving the need for a protective order. No disclosure shall occur until all such objections are resolved by agreement or Court order;
- C. Up to and including 4 designated representatives of each side (i.e., plaintiff side or defendant side) to the extent reasonably necessary for the litigation of this Action provided that before access is given, the designated representative has completed the Undertaking attached as Appendix A hereto and the same is served upon the Producing Party at least 10 days before access to the Protected Material is to be given to that designated representative. The Producing Party has 10 days to object to the disclosure by notifying the Receiving Party in writing that it objects to disclosure of Protected Material to the designated representative. If at the end of period there is no objection, the designated representative is deemed approved. No Protected Material shall be disclosed to such designated representative until after the expiration of the foregoing notice period and resolution of any objection. The Parties agree to promptly confer and use good faith to resolve any such objection. If the Parties are unable to resolve any objection, the Producing Party may file a motion with the Court within 7 days of notifying the Receiving Party in writing that it objects to disclosure of Protected Material to the designated representative, or within such other time as the Parties may agree. The Producing Party shall have the burden of proving the need for a protective order. No disclosure shall occur until all such objections are resolved by agreement or Court order. Either Party may in good faith request the other Party's consent to designate one or more additional representatives, the other Party shall not unreasonably withhold such consent, and the requesting Party may seek leave of Court to designate such additional representative(s) if the requesting Party believes the other Party has unreasonably withheld such consent;
- D. Outside Consultants or Experts subject to the requirements of Paragraph 21;
- E. Professional Vendors; and

F. The Court and its personnel.

19. **PERSONS WITH ACCESS TO PROTECTED MATERIALS DESIGNATED**

**“RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY” AND “HIGHLY CONFIDENTIAL – SOURCE CODE.”** Access to, and disclosure of Protected

Material designated “RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY” and

“HIGHLY CONFIDENTIAL – SOURCE CODE” may be disclosed only to Source Code Qualified Persons.

20. **LIMITATION ON USE.** Documents, information or material produced pursuant to any discovery request in this Action, including but not limited to Protected Material designated as Designated Material, shall be used by the Parties only in the litigation of this Action and shall not be used for any other purpose. Any person or entity who obtains access to Designated Material or the contents thereof pursuant to this Order shall not make any copies, duplicates, extracts, summaries or descriptions of such Designated Material or any portion thereof except as may be reasonably necessary in the litigation of this Action. Any such copies, duplicates, extracts, summaries or descriptions shall be classified Designated Materials and subject to all of the terms and conditions of this Order.

**DISCLOSURE OF OUTSIDE EXPERTS OR CONSULTANTS**

21. Before access or disclosure of Protected Materials to any Outside Expert or Consultant, the consultant or expert must complete the Undertaking attached as Appendix A hereto and the same is served upon the Producing Party with a current curriculum vitae of the consultant or expert at least 10 days before access to the Protected Material is to be given to that outside consultant or expert. As part of the curriculum vitae of the consultant or expert or in a separate document(s) served with the curriculum vitae, the Receiving Party

must disclose the following information regarding the consultant or expert to the Producing Party: (a) the individual's name, business title, and current employer; (b) business address and country of residence; (c) any previous or current relationship (personal or professional) with any of the Parties; (d) a list of other cases in which the individual has testified (at trial or deposition) within the last six years; (e) a list of all companies with which the individual has consulted or by which the individual has been employed within the last four years, including the time period(s) and brief description of each consultancy or employment; and (f) an identification of any patents or public patent applications in which the Outside Consultant or Expert is identified as an inventor or applicant, is involved in prosecuting or maintaining, or has any financial interest or the right to receive any payment from a license or assertion of said patent or patent application.

22. The Producing Party may object by notifying the Receiving Party who provides the information in Paragraph 21 in writing that it objects to disclosure of Protected Material to the Outside Expert or Consultant within 10 calendar days of receiving the request. If at the end of this period there is no objection, the Outside Expert or Consultant is deemed approved. No Protected Material shall be disclosed to such Outside Expert or Consultant until after the expiration of the foregoing notice period and resolution of any objection.
23. A Producing Party objecting to disclosure of Protected Material to an Outside Expert or Consultant shall state with particularity the ground(s) of the objection. The Producing Party's consent to the disclosure of Protected Material to an Outside Expert or Consultant shall not be unreasonably withheld, and its objection should be based on that party's good faith belief that disclosure of its Protected Material to the Outside Expert or Consultant is likely to result in specific business, economic or legal harm to that party.



24. The Parties agree to meet and confer by voice to voice dialogue within 7 calendar days, and use good faith to resolve any such objection. If the Parties are unable to resolve any objection, the Producing Party shall notify the Receiving Party that there is an impasse and then may file a motion with the Court within 10 calendar days of notifying the Receiving Party in writing that it objects to disclosure of Protected Material to the Outside Expert or Consultant, or within such other time as the Parties may agree. The Producing Party shall have the burden of proving the need for a protective order.

**“HIGHLY CONFIDENTIAL – SOURCE CODE” PROTECTED MATERIAL**

25. Nothing in this Order obligates the Parties to produce any Source Code, nor act as an admission that any particular Source Code is relevant or discoverable, other than as otherwise set forth in any Court order.
26. For Protected Material designated “HIGHLY CONFIDENTIAL – SOURCE CODE,” the following additional restrictions apply:
- A. Access to Source Code shall be provided, at the Producing Party’s election, (1) on two “stand-alone” computers (*i.e.*, the computers may not be linked to any network, including a local area network (“LAN”), an intranet, or the Internet) with a hard drive inside said computer containing the Source Code, or (2) on two networked computers configured to connect (via a Virtual Private Network or Virtual Network Computing connection) to a source code review environment hosted on a remote server maintained by the Producing Party. Both (1) and (2) are referred to as “Source Code Computer” or “Source Code Computers.” The Source Code Computers shall be kept in a secure location at the offices of the Producing Party’s Outside Counsel. The parties will confer in good faith to select an office of the Producing Party’s Outside Counsel that is mutually agreed-upon. Any dispute will be raised with the Court. The Source Code Computers may be password protected. Each Source Code Computer shall have at least 128 GB of RAM and shall run on Windows 10 or Linux operating systems. The Source Code Computers shall include reasonable analysis tools appropriate for the review of the Source Code used by the Producing Party in the ordinary course of business. The Source Code Computer shall also include KLayout Layout Viewer and Editor, which is available for download at <https://www.klayout.de>, or a viewer or editor of similar or better quality. The Producing Party may, at its election, also include additional viewing or editing tools. To the extent that any other tools are required to review, display, or obtain print-outs of the Source Code, the Receiving Party shall be responsible for providing any such tools and

any required licenses to the tools that the Receiving Party wishes to use to the Producing Party so that the Producing Party may install such tools on the Source Code Computers. The Receiving Party must provide the Producing Party with the licensed software tool(s) at least 5 calendar days in advance of the date upon which the Receiving Party wishes to have the software tools available for use on the Source Code Computers. The Receiving Party shall not at any time use any compilers, interpreters, or simulators in connection with the Producing Party's Source Code.

- B. No copies shall be made of GDS Files, whether physical, electronic, or otherwise, other than volatile copies necessarily made in the normal course of accessing the GDS Files on the stand-alone computer(s), except as provided herein.
- C. The Receiving Party shall make reasonable efforts to restrict its requests for access to a Source Code Computer to normal business hours, which for purposes of this Paragraph shall be 9:00 a.m. through 6:00 p.m. local time at the reviewing location on at least 48 hours' notice to the Producing Party. The parties will, however, work in good-faith to accommodate review requests of less than 48 hours. Upon reasonable notice from the Receiving Party, which shall not be less than 5 business days in advance, the Producing Party shall make reasonable efforts to accommodate the Receiving Party's request for access to the computers outside of normal business hours. During an inspection, the Receiving Party may request continued inspection on the following business day if such request is made by 3:00 p.m. local time (subject to availability of the Source Code Computer). The parties agree to cooperate in good faith such that maintaining the Source Code at the offices of the Producing Party's Outside Counsel or other designated location shall not unreasonably hinder the Receiving Party's ability to efficiently conduct the prosecution or defense of this Action. The Producing Party may require proper identification of all qualified reviewers before any access to Source Code; and each and every time a person accesses the Source Code Computers, the Producing Party may require each qualified reviewer to complete a Source Code review log identifying: (i) the person's name; (ii) the date and time access began; and (iii) the date and time access ended.
- D. All persons who will review Source Code on behalf of a Receiving Party shall be identified in writing to the Producing Party at least 2 business days in advance of the first time that such person reviews such Source Code. The Producing Party shall provide these individuals with information explaining how to start, log on to, and operate the Source Code Computer in order to access the produced Source Code on the Source Code Computer. All persons who will review Source Code on behalf of a Receiving Party must satisfy the requirements of Paragraph 21 prior to their initial review.
- E. No person other than the Producing Party may alter, dismantle, disassemble or modify the Source Code Computers in any way, or attempt to circumvent any security feature of the computers. In order to verify that its Source Code has not been altered, the Producing Party may benchmark the materials to confirm that the materials have not been altered before and after they are provided but shall not

install any keystroke or other monitoring software on the Source Code Computers. During the period of source code review, the Source Code Computer shall be in a secured room accessed by only the Producing Party or qualified reviewers.

- F. No copies shall be made of Source Code, whether physical, electronic, or otherwise, other than volatile copies necessarily made in the normal course of accessing the Source Code on the Source Code Computers or of utilizing the Source Code analysis tools installed on the source code computers, except as provided herein or for other uses to which the parties may agree or that the Court may order. To facilitate the printing process, the Receiving Party may create copy images (*e.g.*, in PDF, PNG, JPEG, or other similar image file format) of reasonable portions of the Source Code that are subsequently printed onto paper copies in accordance with paragraphs (H) and (I). “Reasonable portions of the Source Code” shall be limited to the portions that are necessary to understand a relevant feature of an accused product in this Action. With respect to GDS-type files, “reasonable portions” include, for each discrete product model number, at least a full die image, logo image, and images of the relevant sites—not to exceed 40 pages per product model number (*e.g.*, GP100-892-A1). The Receiving Party shall not print Source Code in order to review blocks of Source Code elsewhere in the first instance, *i.e.*, as an alternative to reviewing that Source Code electronically on the Source Code Computers, since the parties acknowledge and agree that the purpose of the protections herein would be frustrated. The Producing Party shall not unreasonably withhold approval and the parties shall meet and confer in good faith to resolve any disputes. No outside electronic devices, including but not limited to laptop computers, USB flash drives, zip drives, cell phones, portable printers, or devices with camera functionalities shall be permitted in the same room as the Source Code Computers, except as provided herein. The Producing Party may only exercise personal supervision over the Receiving Party from outside the review room when the Receiving Party is in the Source Code review room. Such supervision shall not entail review of any work product generated by the Receiving Party, *e.g.*, monitoring the screens of the Source Code Computers, monitoring any surface reflecting any notes or work product of the Receiving Party, or monitoring the key strokes of the Receiving Party. There will be no video supervision by any Producing Party.
- G. The Receiving Party may take notes on a laptop or other personal electronic device, provided such device does not have a camera, is not connected to the Source Code Computer in any way, and has its wireless and WiFi capabilities disabled during the review. Any handwritten notes or other work product created by the Receiving Party reflecting Source Code shall be marked as “HIGHLY CONFIDENTIAL – SOURCE CODE.” The Receiving Party may not copy Source Code into its notes. For purposes of this paragraph, inclusion of file paths, file names, GDS coordinates, or information regarding layers of the GDS displayed in an image in the Receiving Party’s notes or other work product shall not be considered copying the Source Code. The Receiving Party may transmit its notes electronically between Source Code Qualified Persons provided that the electronically transmitted document is encrypted.



- H. To facilitate printing, the Producing Party shall provide software to enable the creation of copy images (*e.g.* in PDF, PNG, JPEG, or other similar image file format) of the Source Code on the Source Code Computers. The sole purpose of the generation of images of the Source Code is for the Receiving Party to designate the portions of the Source Code for which it seeks printouts. With respect to non-GDS-type Source Code files, the Receiving Party shall include the location of the electronic file(s) in the header or footer of the printed page for each image printout of Source Code. With respect to GDS-type Source Code files, the Receiving Party shall include information sufficient to regenerate the image captured in the image printout of Source Code, including at least the name of the design file, visible layer information, and the GDS coordinates (including x, y, and, if available, z (zoom) coordinates), on each image printout of Source Code. All original printed pages of Source Code shall be retained by the Producing Party and the images used to generate those printed pages shall remain on the Source Code Computer for the duration of the Action. At the request of the Receiving Party, the Producing Party shall within 3 business days provide 1 high-resolution hard copy print out of the Source Code that the Receiving Party believes in good faith are necessary to understand a relevant feature of an accused product. If the Producing Party objects to the production of the requested Source Code because the request is excessive, it shall state its objection within the allotted 3 business days pursuant to this paragraph. In the event of a dispute, the parties will meet and confer within two business days of the objection being raised; and if they cannot resolve it, the parties will raise it with the Court via a Motion for a Protective Order by the Producing Party. Upon creating an image of any portion of Source Code, the Receiving Party shall log the location of the electronic file(s) that was/were printed, to the extent not already included in the image printout, such that the electronic file(s) may be readily located on the Source Code Computer. Such logging may include, but is not limited to, complete filenames and directory paths, and with respect to GDS-type Source Code files, the name of the design file, visible layer information, and GDS coordinates (x, y, and, if available, z (zoom) coordinates). The Receiving Party shall provide this log to the Producing Party at the end of each review session.
- I. Hard copy print outs of Source Code shall be provided on Bates numbered colored paper clearly labeled "HIGHLY CONFIDENTIAL – SOURCE CODE" on each page and shall be maintained by the Receiving Party's Outside Counsel or qualified reviewers in a secured locked area when not being reviewed. The Receiving Party may also temporarily keep the print outs at: (i) the United States District Court for the District of Delaware for any proceedings(s) relating to the Source Code, for the dates associated with the proceeding(s); (ii) the sites where any deposition(s) relating to the Source Code are taken, for the dates associated with the deposition(s); and (iii) any intermediate location reasonably necessary to transport the print outs (*e.g.*, a hotel prior to a Court proceeding or deposition). The Receiving Party shall exercise due care in maintaining the security of the printouts at these temporary locations. The Receiving Party is permitted to mail hard copy printouts of Source Code within the contiguous 48 states of the United States of America by overnight delivery via Federal Express or other similarly reliable private courier. No further hard copies of such Source Code shall be

made and the Source Code shall not be transferred into any electronic format or onto any electronic media except that:

- a. For depositions of witnesses who would otherwise be permitted access to Source Code, the Receiving Party may request that the Producing Party bring to the deposition three printed copies of Source Code that the Receiving Party identifies by Bates number at least 2 business days in advance of the deposition. The parties will, however, work in good faith to accommodate print requests made less than 2 business days in advance of the deposition. The printed copies of Source Code will be collated/unitized as requested by the Receiving Party. While printed copies of Source Code may be marked as exhibits during the deposition for ease of use, no printed copies of Source Code will be provided to the court reporter. Instead, the Producing Party shall retain all printed copies of Source Code at the conclusion of any such deposition and will bring any printed copies of Source Code marked as an exhibit to the hearing upon request. The Producing Party shall, on request at least 5 days before the scheduled deposition, make a Source Code Computer available during depositions of witnesses who would otherwise be permitted access to such Source Code. Such depositions shall take place at a location of the Producing Party's choosing.
- b. The Receiving Party is permitted to make hard copies for the Court in connection with a filing, hearing, or trial in this Action, and of only the specific pages directly relevant to and necessary for deciding the issue for which the portions of the Source Code are being filed or offered. To the extent portions of Source Code are quoted in a court filing, the party quoting the Source Code shall quote only such portions as necessary to establish their point. Either (A) the entire document will be stamped and treated as "HIGHLY CONFIDENTIAL –SOURCE CODE"; or (B) those pages containing quoted Source Code will be separately stamped and treated as "HIGHLY CONFIDENTIAL –SOURCE CODE."
- c. The Receiving Party is permitted to make one additional hard copy of the printed Source Code for itself and one additional hard copy for each of its qualified experts and/or qualified consultants, but not to exceed a total of 5 copies in the possession of the Receiving Party. All copies are to be maintained by Outside Counsel for the Receiving Party or any such expert or consultant in a secured, locked area as provided by the terms of this Order.
- d. Outside Counsel for the Receiving Party shall maintain a Source Code log identifying the number of copies of Source Code made by the Receiving Party and each location where any copy is stored or maintained. Should a genuine need to track access to copies of Source Code made by the Receiving Party arise during the pendency of this Action, counsel for the Receiving Party will produce, upon request, each such Source Code log to the Producing Party within 10 days of a written request by the Producing Party to review the log. In any event, the Receiving Party will produce the log to the Producing Party within 20 days of the final disposition of the Action.

- e. Electronic copies of Source Code may only be made to be included in Infringement and Invalidity Contentions, Expert Reports, discovery requests, or pleadings filed with the Court, and any drafts thereof, and of only the specific pages directly relevant to and necessary for deciding the issue for which the portions of the Source Code are being filed or offered. Such documents may be served electronically by email, if encrypted, or by secure file transfer. To the extent portions of Source Code are quoted in any of the foregoing documents, the party quoting the Source Code shall make good faith efforts to quote only such portions as necessary to establish their point. Either (A) the entire document will be stamped and treated as “HIGHLY CONFIDENTIAL –SOURCE CODE”; or (B) those pages containing quoted Source Code will be separately stamped and treated as “HIGHLY CONFIDENTIAL –SOURCE CODE.”
- J. Nothing in this Order shall be construed to limit how a Producing Party may maintain material designated as “HIGHLY CONFIDENTIAL – SOURCE CODE.”

**NON-WAIVER OF PRIVILEGED DOCUMENTS**

- 27. The production of privileged or work-product protected documents, electronically stored information (“ESI”) or information, whether inadvertent or otherwise, is not a waiver of the privilege or protection from discovery in this case or in any other federal or state proceeding. This Order shall be interpreted to provide the maximum protection allowed by Federal Rule of Evidence 502(d). The provisions of Federal Rule of Evidence 502(b) do not apply. Nothing contained herein is intended to or shall serve to limit a party’s right to conduct a review of documents, ESI or information (including metadata) for relevance, responsiveness and/or segregation of privileged and/or protected information before production.
- 28. Within 5 business days of learning of the production or disclosure, the Party who made the production or disclosure shall send to any Receiving Party a written request for the return or destruction of such documents or things. Upon receiving such a request, the Receiving Party shall immediately (but no later than 5 business days) take all necessary steps to return or destroy such documents or things, including all documents or things

- derived from such produced documents or things, and all copies and electronic copies, and make a written certification to the Producing Party of such compliance.
29. If the Producing Party discovers that privileged, work-product, or otherwise protected documents and things have been produced based upon the Receiving Party's use of such information during a deposition or hearing, the Producing Party may immediately (but no later than 5 business days) request the return of the information and that the Receiving Party immediately cease examination or argument regarding the specific substantive content of the document (at which point the Receiving Party must cease examination regarding that document). The use of such information at a deposition or hearing where neither party knows that such information is privileged, work-product, or otherwise protected shall not constitute a waiver of such protection.
30. If the Receiving Party already disclosed the produced document or thing before being notified by the Producing Party, it must immediately (but no later than 5 business days) notify the Producing Party of such disclosure, including the persons or entities to whom such disclosure was made and must take reasonable steps to retrieve the produced document or thing.
31. If a Receiving Party learns that it has received from a Producing Party a document or thing that clearly appears on its face to contain privileged material that has been disclosed, the Receiving Party shall immediately (but no later than 5 business days) notify the Producing Party and identify, if possible by Bates number, the document or thing that appears on its face to be privileged:
- a. If the Receiving Party wishes to contest that any such document or thing is protected by the attorney-client privilege or by work-product immunity, or otherwise protected or exempted from disclosure, the Receiving Party shall so



notify the Producing Party in writing. Within 5 business days after receiving such notification, the Producing Party shall provide to the Receiving Party a privilege log with entries for the produced document(s). After receiving such a list, if the parties are unable to resolve the dispute through a meaningful meet-and-confer, then no later than 5 business days after the meet-and-confer, the Receiving Party may file a motion to compel production of such documents and things, the protection of which is still disputed. If such a motion is filed, the Producing Party shall have the burden of proving that the documents and things in dispute are protected by the attorney-client privilege, work-product immunity, or other applicable protection.

- b. In no event, however, shall the return or destruction of demanded documents be delayed or refused because of a Receiving Party's objection to the demand or by the filing of a motion to compel. Furthermore, until and unless such motion to compel is granted, the Receiving Party shall neither quote nor substantively reveal any privileged information contained within the documents or things at issue, either prior to or following their return, except to the extent such information is reflected in an appropriate privilege log.

#### **PROSECUTION BAR**

- 32. Absent written consent from the Producing Party, any individual who receives access to "RESTRICTED – OUTSIDE ATTORNEYS' EYES ONLY" or "HIGHLY CONFIDENTIAL – SOURCE CODE" Protected Material that relates to the structure, operation, function, design, or development of any existing or potential product shall not be involved in Patent Prosecution on behalf of the party represented by that person (and with respect to Plaintiffs, Xperi Corporation and its past, current or future subsidiaries



and not limited to the named Plaintiffs in this action) relating to the subject matter of semiconductor device manufacturing, the packaging of semiconductor devices, or analog and/or digital circuit design before any foreign or domestic agency, including the United States Patent and Trademark Office (“the Patent Office”). For purposes of this paragraph, “Patent Prosecution” shall be defined as substantive patent prosecution activities involving “competitive decision-making,” as set forth by the Federal Circuit in *In re Deutsche Bank Trust Co. Americas*, 605 F.3d 1373, 1378 (Fed. Cir. 2010), such as supervising, assisting, or participating in the prosecution of any pending or future patent application before the Patent Office or any other foreign or domestic agency. To avoid any doubt, “Patent Prosecution” as used in this paragraph shall not include representing a party or otherwise participating in reissue proceedings, *ex parte* reexamination, *inter partes* review, covered business method review, or post-grant review proceedings, provided such representation or other participation does not include any involvement in seeking amendment of any claims on behalf of the represented party. This Prosecution Bar shall end 18 months after the earlier of (a) the final termination of this Action, or (b) the withdrawal of that person from representation of the represented party.

33. ~~**DEFENDANT’S POSITION:** Absent written consent from the Producing Party, any individual who receives access to “RESTRICTED – OUTSIDE ATTORNEYS’ EYES ONLY” or “HIGHLY CONFIDENTIAL – SOURCE CODE” Protected Material designated by Defendant, where such Protected Material relates to the structure, operation, function, design, or development of any existing or potential product, shall not be involved acquiring patents or patent applications (including advising or counseling on acquisition) for Xperi Corporation and its past, current or future subsidiaries (including but not limited to the named Plaintiffs in this action) where those patents or patent~~
- FSA*

~~applications relate to the subject matter of semiconductor device manufacturing, the packaging of semiconductor devices, or analog and/or digital circuit designs. This Acquisition Bar shall end 18 months after final disposition of this action as provided herein.~~

RGA

#### **CHALLENGES TO DESIGNATION**

34. A Party may request in writing to the other Party that the designation given to any Designated Material be modified or withdrawn. If the designating Party does not agree to re-designation within 10 days of receipt of the written request, the requesting Party may apply to the Court for relief. Upon any such application to the Court, the burden shall be on the designating Party to show why its classification is proper. Such application shall be treated procedurally as a motion to compel pursuant to Federal Rules of Civil Procedure 37. In making such application, the requirements of the Federal Rules of Civil Procedure and the Local Rules of the Court shall be met. Pending the Court's determination of the application, the designation of the designating Party shall be maintained.

#### **FINAL DISPOSITION**

35. Within 90 days of final termination of this Action, including any appeals, all Designated Material, including all copies, duplicates, abstracts, indexes, summaries, descriptions, and excerpts or extracts thereof (excluding excerpts or extracts incorporated into any privileged memoranda of the Parties and materials which have been admitted into evidence in this Action), shall be destroyed. The Receiving Party shall verify the destruction by certification furnished to the Producing Party.
36. Even after final disposition of this litigation, the confidentiality obligations imposed by this Order shall remain in effect until a Designating Party agrees otherwise in writing or a

court order otherwise directs. Final disposition shall be deemed to be the later of (1) dismissal of all claims and defenses in this action, with or without prejudice; and (2) final judgment herein after the completion and exhaustion of all appeals, rehearings, remands, trials, or reviews of this action, including the time limits for filing any motions or applications for extension of time pursuant to applicable law.

#### **USE IN OTHER PROCEEDINGS**

37. By entering this order and limiting the disclosure of information in this case, the Court does not intend to preclude another court from finding that information may be relevant and subject to disclosure in another case. Any person or party subject to this order who becomes subject to a motion to disclose another party's information designated as "CONFIDENTIAL," "RESTRICTED – OUTSIDE ATTORNEYS' EYES ONLY," or "HIGHLY CONFIDENTIAL – SOURCE CODE" pursuant to this order shall promptly notify that party of the motion so that the party may have an opportunity to appear and be heard on whether that information should be disclosed in the other proceeding.

#### **MISCELLANEOUS PROVISIONS**

38. There shall be no disclosure of any Designated Material by any person authorized to have access thereto to any person who is not authorized for such access under this Order. The Parties are hereby ORDERED to safeguard all such documents, information and material to protect against disclosure to any unauthorized persons or entities.
39. Nothing contained herein shall be construed to prejudice any Party's right to use any Designated Material in taking testimony at any deposition or hearing provided that the Designated Material is only disclosed to a person(s) who is: (i) eligible to have access to the Designated Material by virtue of his or her employment with the designating Party, (ii) identified in the Designated Material as an author, addressee, or copy recipient of

such information, (iii) although not identified as an author, addressee, or copy recipient of such Designated Material, has, in the ordinary course of business, seen such Designated Material, (iv) a current officer, director or employee of the Producing Party; (v) court reporters, videographers, or interpreters; (vi) the Court and its personnel; or (vii) other persons entitled hereunder to have access to Designated Material. The use of “HIGHLY CONFIDENTIAL – SOURCE CODE” Protected Material during deposition should be subject to the requirements set forth in Paragraph 26. Designated Material shall not be disclosed to any other persons unless prior authorization is obtained from counsel representing the Producing Party or from the Court.

40. Any Designated Material that is filed with the Court shall be filed under seal in accordance with the Court’s procedures.
41. The Order applies to pretrial discovery. Nothing in this Order shall be deemed to prevent the Parties from introducing any Designated Material into evidence at the trial of this Action, or from using any information contained in Designated Material at the trial of this Action, subject to any pretrial order issued by this Court and agreement between the parties. The Parties shall meet and confer prior to trial to discuss procedures for maintaining the confidentiality of Protected Information during the course of trial.
42. Each person to whom Designated Material is disclosed in accordance with the terms of this Order shall be advised by counsel of the terms of this Order, shall be informed that he or she is subject to the terms and conditions of this Order, and shall sign an acknowledgment that he or she has received a copy of, has read, and has agreed to be bound by this Order. A copy of the acknowledgment form is attached as Appendix A.
43. To the extent that any discovery is taken of Third Parties and in the event that such Third Parties contended the discovery sought involves trade secrets, confidential business

information, or other proprietary information, then such Third Parties may agree to be bound by this Order. Any such Third Parties shall be provided a copy of this Order by the Party seeking information from the Third Parties. Additionally, the parties may be in possession of information subject to confidentiality obligations to third parties who must be notified prior to production of the production of the confidential information in this Action. To the extent the third party timely objects to the production, the party may withhold production of the document until resolution of the third party's objection is resolved. Unless otherwise required by obligations between the possessing party and the third party, the third party shall file a motion seeking a protective order preventing or otherwise restricting the production of the information.

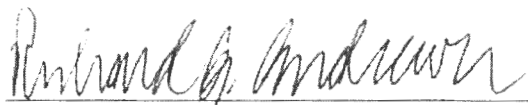
44. The failure to designate documents, information or material in accordance with this Order and the failure to object to a designation at a given time shall not preclude the filing of a motion at a later date seeking to impose such designation or challenging the propriety thereof. The entry of this Order and/or the production of documents, information and material hereunder shall in no way constitute a waiver of any objection to the furnishing thereof, all such objections being hereby preserved.
45. Any Party knowing or believing that any other Party is in violation of or intends to violate this Order and has raised the question of violation or potential violation with the opposing Party and has been unable to resolve the matter by agreement may move the Court for such relief as may be appropriate in the circumstances. Pending disposition of the motion by the Court, the Party alleged to be in violation of or intending to violate this Order shall discontinue the performance of and/or shall not undertake the further performance of any action alleged to constitute a violation of this Order.



46. Production of Protected Material or filing of Protected Material under seal or with appropriate redactions by each of the Parties shall not be deemed a publication of the documents, information and material (or the contents thereof) produced so as to void or make voidable whatever claim the Parties may have as to the proprietary and confidential nature of the documents, information or other material or its contents.
47. Nothing in this Order shall be construed to effect an abrogation, waiver or limitation of any kind on the rights of each of the Parties to assert any applicable discovery or trial privilege.
48. Nothing in this Protective Order shall prevent or restrict a Producing Party's own disclosure or use of its own Designated Material for any purpose.
49. Each of the Parties shall also retain the right to file a motion with the Court (a) to modify this Order to allow disclosure of Designated Material to additional persons or entities if reasonably necessary to prepare and present this Action and (b) to apply for additional protection of Designated Material.
50. Each of the Parties shall also retain the right to designate as confidential, seal, and/or take other measures provided under the Local Rules and this Court's orders to limit the disclosure of confidential information presented in hearings before the Court and contained in transcripts of those hearings.

**IT IS SO ORDERED.**

**DATED** this 3 day of October, 2019.

  
Richard G. Andrews  
Judge, United States District Court

APPENDIX A

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

INVENSAS CORPORATION and TESSERA	)	
ADVANCED TECHNOLOGIES, INC.,	)	
	)	
Plaintiffs,	)	C.A. No. 1:19-cv-00861-RGA
	)	
v.	)	
	)	JURY TRIAL DEMANDED
NVIDIA CORPORATION,	)	
	)	
Defendant.	)	
_____	)	

AGREEMENT TO BE BOUND BY PROTECTIVE ORDER

I, \_\_\_\_\_, declare and say that:

1. I am employed as \_\_\_\_\_ by \_\_\_\_\_.

2. I have received and read a copy of the Protective Order in *Invensas Corporation and Tessera Advanced Technologies, Inc. v. NVIDIA Corporation*, Civil Action No. 1:19-cv-00861-RGA, and understand and agree to abide by its terms.

3. I will comply with all of the provisions of the Protective Order. I will hold in confidence, will not disclose to anyone not qualified under the Protective Order, and will use only for purposes of this action any information designated as "CONFIDENTIAL," "RESTRICTED – OUTSIDE ATTORNEYS' EYES ONLY," or "HIGHLY CONFIDENTIAL – SOURCE CODE" that is disclosed to me.

4. Promptly upon termination of these actions, I will return all documents and things designated as "CONFIDENTIAL," "RESTRICTED – OUTSIDE ATTORNEYS' EYES

ONLY,” or “HIGHLY CONFIDENTIAL – SOURCE CODE” that came into my possession, and all documents and things that I have prepared relating thereto, to the outside counsel for the party by whom I am employed.

5. I acknowledge that, by signing this agreement, I am subjecting myself to the jurisdiction of the United States District Court for the District of Delaware with respect to enforcement of the Protective Order.

6. I understand that any disclosure or use of Confidential Information in any manner contrary to the provisions of the Protective Order may subject me to sanctions for contempt of court.

I declare under penalty of perjury that the foregoing is true and correct.

Dated: \_\_\_\_\_

Name: \_\_\_\_\_

Signed: \_\_\_\_\_



**ATTACHMENT 4**

**COMPLAINT**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

INVENSAS CORPORATION and TESSERA	)	
ADVANCED TECHNOLOGIES, INC.,	)	
	)	
Plaintiffs,	)	C.A. No. _____
	)	
v.	)	
	)	JURY TRIAL DEMANDED
NVIDIA CORPORATION,	)	
	)	
_____ Defendant.	)	

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiffs Invensas Corporation and Tessera Advanced Technologies, Inc. (collectively “Plaintiffs”) bring this complaint for patent infringement against Defendant NVIDIA Corporation (“NVIDIA” or “Defendant”). Plaintiffs, on personal knowledge as to their own acts, and on information and belief as to all others based on investigation, allege as follows:

**NATURE OF THE ACTION**

1. This is a civil action for infringement of United States Patent Nos. 6,232,231 (“the ‘231 patent”), 6,849,946 (“the ‘946 patent”), 7,064,005 (“the ‘005 patent”), 6,317,333 (“the ‘333 patent”), and 5,666,046 (“the ‘046 patent”) (collectively, the “Asserted Patents”) under the patent laws of the United States, 35 U.S.C. § 1, *et seq.*

**THE PARTIES**

2. Plaintiff Invensas Corporation is a Delaware corporation with its principal place of business at 3025 Orchard Parkway, San Jose, California 95134.

3. Plaintiff Tessera Advanced Technologies, Inc. is a Delaware corporation with its principal place of business at 3025 Orchard Parkway, San Jose, California 95134.

4. Defendant NVIDIA Corporation is a Delaware corporation with its principal place of business at 2788 San Tomas Expressway, Santa Clara, California 95051. NVIDIA may be served through its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808.

### **JURISDICTION AND VENUE**

5. The Court has subject matter jurisdiction over the matters pleaded herein under 28 U.S.C. §§ 1331 and 1338(a) and the patent laws of the United States, 35 U.S.C. § 1, *et seq.*

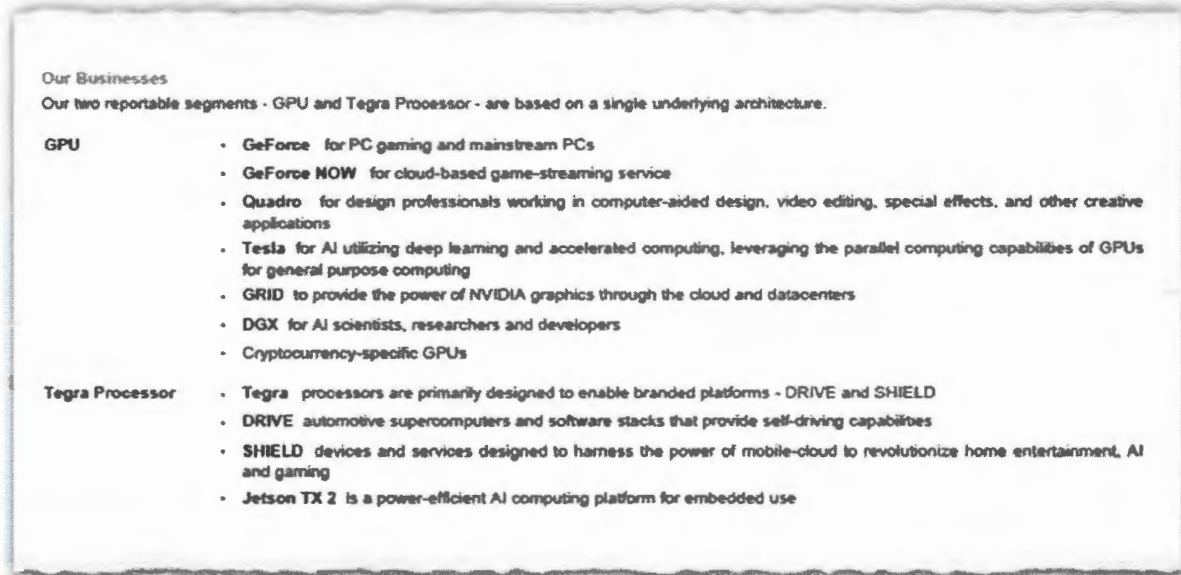
6. The Court has personal jurisdiction over NVIDIA at least because NVIDIA is organized and exists under the laws of the State of Delaware. On information and belief, NVIDIA has regularly and systematically transacted business in and with residents of the State of Delaware, directly or through intermediaries, and/or committed acts of infringement in the State of Delaware as alleged more particularly below. NVIDIA has also placed infringing products into the stream of commerce by shipping those products into the State of Delaware or by knowing that the products would be shipped into the State of Delaware. Plaintiffs' causes of action arise, at least in part, from NVIDIA's contacts with and activities in the State of Delaware.

7. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1400 and 1391(b) and (c) because NVIDIA, as a Delaware corporation, resides in this judicial district. In addition, NVIDIA has committed acts of infringement in the State of Delaware, including by selling and distributing infringing products in the State of Delaware.

### **NVIDIA'S INFRINGING PRODUCTS AND ACTIVITIES**

8. NVIDIA is a global supplier of graphics processing units ("GPUs") and system-on-a-chip processors (SoCs) that incorporate GPUs and multi-core CPUs to drive supercomputing. *See* 2018 NVIDIA Form 10-K, p. 23. NVIDIA's two reportable segments, GPU and Tegra Processor, are based on a single underlying graphics architecture. *See id.* NVIDIA's

GPU and Tegra SoC platforms serve many markets, from consumer PC gaming to enterprise workstations to government and cloud service provider datacenters. *See id.*, p. 9.



*Source:* 2018 NVIDIA Form 10-K, p. 5.

9. NVIDIA does not directly manufacture semiconductor wafers used for its products. Instead, NVIDIA utilizes a “fabless” manufacturing strategy, whereby NVIDIA employs third party suppliers for wafer fabrication, assembly, testing, and packaging. *See* 2018 NVIDIA Form 10-K, p. 9. This allows NVIDIA to “focus [its] resources on product design, additional quality assurance, marketing, and customer support.” *Id.* On information and belief, the bulk of NVIDIA’s semiconductor wafers are fabricated by Taiwan Semiconductor Manufacturing Company Limited (“TSMC”).

10. For fiscal years 2013 through 2018, NVIDIA reported global revenues of more than \$34 billion. On information and belief, a substantial portion of this revenue is attributable to infringing sales made in the United States, including, without limitation: (a) NVIDIA products sold directly to consumers and companies in the United States; (b) NVIDIA products sold abroad

and with knowledge that those products would be incorporated in finished products and then imported into the United States for sale and/or use; and (c) NVIDIA products nominally sold abroad but for which substantial activities underlying the sales transactions (e.g., design-win activities, negotiations, testing, qualification) take place in the United States.

11. NVIDIA acknowledges that for products not sold directly to consumers, “achieving design wins is an important success factor.” 2018 NVIDIA Form 10-K, p. 14. “Achieving design wins may involve a lengthy process in pursuit of a customer opportunity and depend on our ability to anticipate features and functionality that customers and consumers will demand.” *Id.* To that end, NVIDIA has deemed it critical to employ sales teams with “a high level of technical expertise and product and industry knowledge to support the competitive and complex design win process,” along with a “highly skilled team of application engineers to assist our Channel in designing, testing, and qualifying system designs that incorporate our products.” 2016 NVIDIA Form 10-K, p. 7. On information and belief, the sales teams and application engineers referenced in NVIDIA’s Form 10-K filing are located primarily in the United States.

12. NVIDIA also works in collaboration with industry leaders to develop products: “We invest significant resources in the development of relationships with industry leaders, often assisting these companies in the product definition of their new products. We believe that forming these relationships and utilizing next-generation development tools to design, simulate and verify our products will help us remain at the forefront of visual computing and develop products that utilize leading-edge technology on a rapid basis.” 2017 NVIDIA Form 10-K, p. 10.

13. NVIDIA designs, makes, uses, sells, offers for sale, and/or imports into the United States, and provides support for 40nm Fermi GPUs, including products with the part name or number GF100, GF104, GF106, GF108, GF110, GF114, GF116, GF117, GF118, and

GF119 (the “40nm Fermi GPUs”). On information and belief, NVIDIA 40nm Fermi GPUs are made using TSMC’s 40nm manufacturing technology, and therefore include the same or similar structures and features. On information and belief, NVIDIA 40nm Fermi GPUs are incorporated in products that are designed, made, used, sold, offered for sale, and/or imported into the United States, including, for example, graphics cards and/or gaming laptops sold by Acer, ASUS, Lenovo, and MSI and the following NVIDIA products:

C2070 GPU Computing Module	GeForce GT 620	GeForce GTX 675M
C2075 GPU Computing Module	GeForce GT 620M	GeForce GTX465
GeForce 410M	GeForce GT 625	GeForce GTX470
GeForce 510	GeForce GT 625M	GeForce GTX480
GeForce 605	GeForce GT 630	GeForce GTX480M
GeForce 610M	GeForce GT 630M	M2050 GPU Module
GeForce 710M	GeForce GT 635M	M2070 GPU Computing Module
GeForce 720M	GeForce GT 640	M2090 GPU Computing Module
GeForce 810M	GeForce GT 640M LE	Quadro 1000M
GeForce 820M	GeForce GT 645	Quadro 2000
GeForce GT 415M	GeForce GT 705	Quadro 3000M
GeForce GT 420	GeForce GT 730	Quadro 4000
GeForce GT 420M	GeForce GTS 450	Quadro 4000M
GeForce GT 425M	GeForce GTX 460	Quadro 5000
GeForce GT 430	GeForce GTX 460 SE	Quadro 5000M
GeForce GT 435M	GeForce GTX 460M	Quadro 500M
GeForce GT 440	GeForce GTX 470M	Quadro 5010M
GeForce GT 445M	GeForce GTX 485M	Quadro 600
GeForce GT 520	GeForce GTX 550 Ti	Quadro 6000
GeForce GT 520M	GeForce GTX 555	Quadro 7000
GeForce GT 520MX	GeForce GTX 560	Quadro NVS 315
GeForce GT 525M	GeForce GTX 560 SE	Quadro Plex 7000
GeForce GT 530	GeForce GTX 560 Ti	S2050 GPU Computing Server
GeForce GT 540M	GeForce GTX 560M	S2070 GPU Computing Server
GeForce GT 545	GeForce GTX 570	
GeForce GT 550M	GeForce GTX 570M	
GeForce GT 555M	GeForce GTX 580	
GeForce GT 610	GeForce GTX 580M	
	GeForce GTX 590	
	GeForce GTX 670M	

14. NVIDIA designs, makes, uses, sells, offers for sale, and/or imports into the United States, and provides support for 28nm Kepler GPUs, including products with the part



name or number GK104, GK106, GK107, GK110, and GK208 (the “28nm Kepler GPUs”). On information and belief, NVIDIA 28nm Kepler GPUs are made using TSMC’s 28nm manufacturing technology, and therefore include the same or similar structures and features. On information and belief, NVIDIA 28nm Kepler GPUs are incorporated in products that are designed, made, used, sold, offered for sale, and/or imported into the United States, including, for example, graphics cards and/or gaming laptops sold by Acer, ASUS, Lenovo, and MSI and the following NVIDIA products:

GeForce 825M	GeForce GTX 670	K20 GPU Accelerator
GeForce 920M	GeForce GTX 680	K20X GPU Accelerator
GeForce GT 630	GeForce GTX 690	K40 GPU Accelerator
GeForce GT 635	GeForce GTX 760	Quadro 410
GeForce GT 640	GeForce GTX 760 Ti	Quadro K1000M
GeForce GT 640M	GeForce GTX 760M	Quadro K1100M
GeForce GT 640M LE	GeForce GTX 765M	Quadro K2000
GeForce GT 645M	GeForce GTX 770	Quadro K2000D
GeForce GT 650M	GeForce GTX 770M	Quadro K2000M
GeForce GT 660M	GeForce GTX 780	Quadro K2100M
GeForce GT 710	GeForce GTX 780 Ti	Quadro K3000M
GeForce GT 720	GeForce GTX 780M	Quadro K3100M
GeForce GT 720M	GeForce GTX 860M	Quadro K4000
GeForce GT 730	GeForce GTX 870M	Quadro K4000M
GeForce GT 730M	GeForce GTX 880M	Quadro K4100M
GeForce GT 735M	GeForce GTX TITAN	Quadro K420
GeForce GT 740	GeForce GTX TITAN	Quadro K4200
GeForce GT 740M	Black	Quadro K5000
GeForce GT 745M	GeForce GTX TITAN Z	Quadro K5000M
GeForce GT 750M	GeForce GTX 670MX	Quadro K500M
GeForce GT 755M	GeForce GTX 675MX	Quadro K5100M
GeForce GTX 645	GeForce GTX 680M	Quadro K510M
GeForce GTX 650	GeForce GTX 680MX	Quadro K5200
GeForce GTX 650 Ti	GRID K1	Quadro K600
GeForce GTX 650 Ti	GRID K2	Quadro K6000
Boost	GRID K340	Quadro K610M
GeForce GTX 660	GRID K520	Quadro NVS 510
GeForce GTX 660 Ti	K10 GPU Accelerator	

15. NVIDIA designs, makes, uses, sells, offers for sale, and/or imports into the United States, and provides support for 28nm Maxwell GPUs, including products with the part

name or number GM107, GM108, GM200, GM204, and GM206 (the “28nm Maxwell GPUs”).

On information and belief, NVIDIA 28nm Maxwell GPUs are made using TSMC’s 28nm manufacturing technology, and therefore include the same or similar structures and features. On information and belief, NVIDIA 28nm Maxwell GPUs are incorporated in products that are designed, made, used, sold, offered for sale, and/or imported into the United States, including, for example, graphics cards and/or gaming laptops sold by Acer, ASUS, Lenovo, and MSI and the following NVIDIA products:

GeForce 840M	GeForce GTX 970	Quadro K620
GeForce 845M	GeForce GTX 970M	Quadro M1000M
GeForce 930M	GeForce GTX 980	Quadro M1200
GeForce 940M	GeForce GTX 980 Ti	Quadro M2000
GeForce GT 945A	GeForce GTX 980	Quadro M2000M
GeForce GTX 745	GeForce GTX 980M	Quadro M2200
GeForce GTX 750	GeForce GTX TITAN X	Quadro M500M
GeForce GTX 750 Ti	GeForce MX110	Quadro M520
GeForce GTX 850M	GeForce MX130	Quadro M6000
GeForce GTX 860M	M10 GPU Accelerator	Quadro M600M
GeForce GTX 950	M4 GPU Accelerator	Quadro M620
GeForce GTX 950M	M40 GPU Accelerator	Quadro NVS 810
GeForce GTX 960	Quadro K1200	Jetson Nano
GeForce GTX 960M	Quadro K2200	
GeForce GTX 965M	Quadro K2200M	

16. NVIDIA designs, makes, uses, sells, offers for sale, and/or imports into the United States, and provides support for 16nm Pascal GPUs, including products with the part name or number GP100, GP102, GP104, and GP106 (the “16nm Pascal GPUs”). On information and belief, NVIDIA 16nm Pascal GPUs are made using TSMC’s 16nm manufacturing technology, and therefore include the same or similar structures and features. On information and belief, NVIDIA 16nm Pascal GPUs are incorporated in products that are designed, made, used, sold, offered for sale, and/or imported into the United States, including, for example, graphics

cards and/or gaming laptops sold by Acer, ASUS, Lenovo, and MSI and the following NVIDIA products:

GeForce GTX 1060	GeForce GTX 1080 Ti	Quadro P4000
GeForce GTX 1060 Max-Q	NVIDIA TITAN X	Quadro P4000 Max-Q
GeForce GTX 1070	NVIDIA TITAN Xp	Quadro P4200
GeForce GTX 1070 Max-Q	P100 GPU Accelerator	Quadro P5000
GeForce GTX 1070 Ti	P4 GPU Accelerator	Quadro P5200
GeForce GTX 1080	P40 GPU Accelerator	Quadro P6000
GeForce GTX 1080 Max-Q	P6 GPU Accelerator	Jetson TX2
	Quadro GP100	
	Quadro P3000	
	Quadro P3200	

17. NVIDIA designs, makes, uses, sells, offers for sale, and/or imports into the United States, and provides support for 28nm Tegra K1 SoCs, including products with the part name or number T124 and T132 (the “28nm Tegra K1 SoCs”). The 28nm Tegra K1 SoCs feature, among other things, a 28nm Kepler GPU. On information and belief, NVIDIA 28nm Tegra K1 SoCs are made using TSMC’s 28nm manufacturing technology, and therefore include the same or similar structures and features. On information and belief, NVIDIA 28nm Tegra K1 SoCs are incorporated in products that are designed, made, used, sold, offered for sale, and/or imported into the United States, including, for example, the NVIDIA SHIELD Tablet, Acer Chromebook 13, Google Nexus 9, Lenovo ThinkVision 28, and Google Project Tango Tablet.

18. NVIDIA designs, makes, uses, sells, offers for sale, and/or imports into the United States, and provides support for 20nm Tegra X1 SoCs, including products with the part name or number T210 and NX (the “20nm Tegra X1 SoCs”). The 20nm Tegra X1 SoCs feature, among other things, a 20nm Maxwell GPU. On information and belief, NVIDIA 20nm Tegra X1 SoCs are made using TSMC’s 20nm manufacturing technology, and therefore include the same or similar structures and features. On information and belief, NVIDIA 20nm Tegra X1 SoCs are

incorporated in products that are designed, made, used, sold, offered for sale, and/or imported into the United States, including, for example, the NVIDIA SHIELD TV, NVIDIA SHIELD Tablet, NVIDIA DRIVE CX & PX, Google Pixel C, and Nintendo Switch.

19. NVIDIA designs, makes, uses, sells, offers for sale, and/or imports into the United States, and provides support for the Tesla GPUs, including products with the part name or number Tesla P100 and Tesla V100 that are made using TSMC's Chip-on-Wafer-on-Substrate ("CoWoS") technology (the "CoWoS GPUs"). On information and belief, NVIDIA CoWoS GPUs include the same or similar structures and features. On information and belief, NVIDIA CoWoS GPUs are incorporated in products that are designed, made, used, sold, offered for sale, and/or imported into the United States, including, for example, the NVIDIA DGX-1 and DGX-2 supercomputers and data center products provided by Acer, ASUSTek Computer, Cisco, Dell, Fujitsu, Google, Lenovo, Penguin Computing, and Supermicro, among others. *See, e.g.,* <https://www.nvidia.com/en-us/data-center/where-to-buy-tesla/>.

### **CLAIMS FOR PATENT INFRINGEMENT**

20. Plaintiffs incorporate by reference the allegations set forth in paragraphs 1 through 19 as though fully set forth herein.

21. The allegations provided below are exemplary and without prejudice to Plaintiffs' infringement contentions provided pursuant to the Court's scheduling order and local rules. In providing these allegations, Plaintiffs do not convey or imply any particular claim constructions or the precise scope of the claims. Plaintiffs' claim construction contentions regarding the meaning and scope of the claim terms will be provided under the Court's scheduling order and local rules.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 6,232,231**

22. Plaintiffs incorporate by reference the allegations set forth in paragraphs 1 through 21 as though fully set forth herein.

23. On May 15, 2001, the United States Patent and Trademark Office (“USPTO”) duly and legally issued the ’231 patent, titled “Planarized Semiconductor Interconnect Topography and Method For Polishing a Metal Layer To Form Interconnect,” naming Anantha R. Sethuraman and Christopher A. Seams as inventors. A true and correct copy of the ’231 patent is attached hereto as Exhibit A.

24. Invensas owns the entire right, title, and interest in and to the ’231 patent, including the right to sue and recover damages, including damages for past infringement.

25. Plaintiffs have complied with applicable requirements of 35 U.S.C. § 287(a), which entitles Plaintiffs to receive damages for past infringement.

26. By at least December 2, 2014, Plaintiffs disclosed the existence of the ’231 patent to NVIDIA and explained, in the form of claim charts, how certain exemplary NVIDIA devices infringe one or more claims of the ’231 patent. Thus, since at least December 2, 2014, NVIDIA has had knowledge of the ’231 patent and that its activities infringe the ’231 patent. In addition, since at least December 2, 2014, NVIDIA has known or should have known that its customers, distributors, and other purchasers of the ’231 Accused Products were infringing the ’231 patent.

27. NVIDIA has infringed, directly and/or indirectly, either literally or under the doctrine of equivalents, at least claim 1 of the ’231 patent in violation of at least 35 U.S.C. § 271(b) and/or (g) by making, having made, using, selling, offering for sale, and/or importing into the United States products that infringe the ’231 patent.

28. Based on the information presently available, Plaintiffs allege that NVIDIA's 40nm Fermi GPUs, 28nm Kepler GPUs, 28nm Maxwell GPUs, 16nm Pascal GPUs, 28nm Tegra K1 SoCs, and 20nm Tegra X1 SoCs are exemplary devices that infringe at least claim 1 of the '231 patent. The infringing products identified in this paragraph, all NVIDIA products that are substantially similar to these products, and products containing the same are referred to collectively as the "'231 Accused Products." Plaintiffs make this preliminary identification of infringing products and infringed claims without the benefit of discovery or claim construction in this action, and expressly reserve the right to supplement and revise this identification of infringing products based on additional information obtained through discovery or otherwise.

29. On information and belief, the '231 Accused Products meet each and every limitation of at least claim 1 of the '231 patent.

30. Claim 1 of the '231 patent recites a "method for providing a substantially planar semiconductor topography which extends above a plurality of electrically conductive features that form an integrated circuit[.]" On information and belief, the '231 Accused Products comprise a substantially planar semiconductor topography that extends above a plurality of electrically conductive features that form an integrated circuit. For example, the '231 Accused Products comprise a substantially planar layer extending over a layer below that contains a plurality of electrically conductive features that form an integrated circuit.

31. Claim 1 of the '231 patent requires "etching a plurality of laterally spaced dummy trenches into a dielectric layer between a first trench and a series of second trenches[.]" On information and belief, the '231 Accused Products comprise semiconductor chips that are made by a process that includes etching a plurality of laterally spaced dummy trenches into a dielectric layer between a first trench and a series of second trenches. For example, the '231 Accused



Products comprise multiple dummy trenches laterally spaced between a first interconnect and a series of second interconnects, each of which was formed in part by etching trenches into a layer of insulating material.

32. Claim 1 of the '231 patent further requires that “a lateral dimension of said first trench is greater than a lateral dimension of said second trenches[.]” On information and belief, the lateral dimension of a first trench is greater than a lateral dimension of a series of second trenches (i.e., the first trench is wider than at least one of the second trenches) in the '231 Accused Products. For example, the width of the first trench is greater than the width of one or more of the second trenches.

33. Claim 1 of the '231 patent further requires “filling said dummy trenches and said first and second trenches with a conductive material[.]” On information and belief, in the '231 Accused Products, the first, second, and dummy trenches are filled with a conductive material. For example, the first interconnect, second interconnects, and dummy connectors are formed from copper that was filled into trenches etched into the insulating layer.

34. Claim 1 of the '231 patent further requires “polishing said conductive material to form dummy conductors exclusively in said dummy trenches and interconnect exclusively in said first and second trenches[.]” On information and belief, in the '231 Accused Products, the interconnects and dummy conductors are made by a process that includes polishing the conductive material deposited in the first, second, and dummy trenches until the conductive material is exclusively in those trenches (i.e., the conductive material in the first, second, and dummy trenches has been polished such that the copper in the dummy trenches does not connect to the copper in either of the first or second trenches). For example, copper deposited in the

dummy trenches has been polished so that it is separate from the copper deposited in the first and second trenches.

35. Claim 1 of the '231 patent further requires "said dummy conductors are electrically separate from said plurality of electrically conductive features and co-planar with said interconnect." On information and belief, in the '231 Accused Products, the dummy conductors are co-planar with the interconnect and electrically separate from the plurality of electrically conductive features. For example, the upper surfaces of the interconnects are coplanar with the upper surfaces of the dummy conductors, and the dummy conductors are electrically separate from the active or passive electrical components below the dummy conductors.

36. NVIDIA has imported into the United States, or offered to sell, sell, or used within the United States, the '231 Accused Products, knowing that such products are made by a process covered by at least claim 1 of the '231 patent, in violation of 35 U.S.C. § 271(g). For example, NVIDIA has offered to sell the '231 Accused Products in the United States through NVIDIA's online store, <https://web.archive.org/web/20150506105821/http://www.geforce.com/hardware> (archived: May 6, 2015), and, on information and belief, through domestic retailers such as Best Buy. The infringing semiconductor chips of the '231 Accused Products are neither materially changed by subsequent processes nor become trivial and nonessential components of another product.

37. NVIDIA has actively, knowingly, and intentionally induced infringement of at least claim 1 of the '231 patent in violation of 35 U.S.C. § 271(b). On information and belief, NVIDIA, knowing its products infringe the '231 patent and with the specific intent for others to infringe the '231 patent, has actively encouraged third parties, including OEMs, ODMs, system

builders, add-in board manufacturers (“AIBs”), automotive suppliers, and retailers/distributors, to sell, offer for sale, use, and/or import into the United States, without license or authority. ’231 Accused Products and/or products containing ’231 Accused Products made by a process patented in the United States. For example, NVIDIA published and provided marketing materials, technical specifications, datasheets, user manuals, and development and testing resources on its website (<http://www.nvidia.com/>) that instructed and encouraged third parties to integrate the ’231 Accused Products into products sold, offered for sale, used, and/or imported into the United States and encouraged NVIDIA’s customers to purchase and use those products in the United States. *E.g.*, <https://web.archive.org/web/20150506104826/http://www.geforce.com/hardware/compare-buy-gpus> (archived: May 6, 2015); <https://web.archive.org/web/20150821070328/http://www.nvidia.com/object/tegra.html> (archived: August 21, 2015). NVIDIA has also established the “NVIDIA Partner Network” to assist customers with marketing, training, sales and distribution, and service and support. *E.g.*, <https://web.archive.org/web/20150819100649/http://www.nvidia.com/object/nvidia-partner-network.html> (archived: August 19, 2015). These activities were designed to bring NVIDIA’s infringing products to market in the United States.

38. Plaintiffs are entitled to recover from NVIDIA all damages that Plaintiffs have sustained as a result of NVIDIA’s infringement of the ’231 patent, including, without limitation, not less than a reasonable royalty.

39. NVIDIA’s infringement of the ’231 patent has been willful and deliberate, entitling Plaintiffs to enhanced damages and attorneys’ fees.

## **COUNT II**

### **INFRINGEMENT OF U.S. PATENT NO. 6,849,946**

40. Plaintiffs incorporate by reference the allegations set forth in paragraphs 1 through 39 as though fully set forth herein.

41. On February 1, 2005, the USPTO duly and legally issued the '946 patent, titled "Planarized Semiconductor Interconnect Topography and Method For Polishing a Metal Layer To Form Interconnect," naming Anantha R. Sethuraman and Christopher A. Seams as inventors. A true and correct copy of the '946 patent is attached hereto as Exhibit B.

42. Invensas owns the entire right, title, and interest in and to the '946 patent, including the right to sue and recover damages, including damages for past infringement.

43. Plaintiffs have complied with applicable requirements of 35 U.S.C. § 287(a), which entitles Plaintiffs to receive damages for past infringement.

44. By at least December 2, 2014, Plaintiffs disclosed the existence of the '946 patent to NVIDIA and explained, in the form of claim charts, how certain exemplary NVIDIA devices infringe one or more claims of the '946 patent. Thus, since at least December 2, 2014, NVIDIA has had knowledge of the '946 patent and that its activities infringe the '946 patent. In addition, since at least December 2, 2014, NVIDIA has known or should have known that its customers, distributors, and other purchasers of the '946 Accused Products were infringing the '946 patent.

45. NVIDIA has infringed, directly and/or indirectly, either literally or under the doctrine of equivalents, at least claim 16 of the '946 patent in violation of at least 35 U.S.C. § 271(a) and/or (b) by making, having made, using, selling, offering for sale, and/or importing into the United States products that infringe the '946 patent.

46. Based on the information presently available to it, Plaintiffs allege that NVIDIA's 40nm Fermi GPUs, 28nm Kepler GPUs, 28nm Maxwell GPUs, 16nm Pascal GPUs, 28nm Tegra K1 SoCs, and 20nm Tegra X1 SoCs are exemplary devices that infringe at least claim 16 of the '946 patent. The infringing products identified in this paragraph, all NVIDIA products that are substantially similar to these products, and products containing the same are referred to

collectively as the “’946 Accused Products.” Plaintiffs make this preliminary identification of infringing products and infringed claims without the benefit of discovery or claim construction in this action, and expressly reserve the right to augment, supplement, and revise this identification of infringing products based on additional information obtained through discovery or otherwise.

47. Claim 16 of the ’946 patent recites “[a] substantially planar semiconductor topography[.]” On information and belief, the ’946 Accused Products comprise a substantially planar semiconductor topography. For example, the upper surfaces of the first trench, plurality of laterally spaced dummy trenches, series of second trenches, and the dielectric layer are substantially planar.

48. Claim 16 of the ’946 patent requires “a plurality of laterally spaced dummy trenches in a dielectric layer, between a first trench and a series of second trenches[.]” On information and belief, the ’946 Accused Products comprise a plurality of laterally spaced dummy trenches in a dielectric layer between a first trench and a series of second trenches. For example, there are multiple laterally spaced dummy trenches in insulating material that are between a first relatively wide trench and a series of second relatively narrow trenches.

49. Claim 16 of the ’946 patent further requires that “each of the second trenches is relatively narrow compared to the first trench” and “a lateral dimension of at least one of the laterally spaced dummy trenches is less than a lateral dimension of the first trench and greater than a lateral dimension of at least one of the series of second trenches[.]” On information and belief, the second trenches in the ’946 Accused Products are relatively narrow compared to the first trench (i.e., each of the relatively narrow trenches is narrower than the relatively wide trench), and a lateral dimension of at least one of the laterally spaced dummy trenches is less than a lateral dimension of the first trench and greater than a lateral dimension of at least one of

the series of second trenches. For example, the width of one or more of the dummy trenches is less than the width of the relatively wide trench, and greater than the width of one or more of the relatively narrow trenches.

50. Claim 16 of the '946 patent further requires "dummy conductors in said laterally spaced dummy trenches and electrically separate from electrically conductive features below said dummy conductors[.]" On information and belief, in the '946 Accused Products, dummy conductors in the laterally spaced dummy trenches are electrically separate from electrically conductive features below the dummy conductors. For example, the copper-based dummy conductors in the dummy trenches are electrically separate from the copper-based conductive lines in the first trench and the series of second trenches, and from active or passive electrical components below the dummy conductors.

51. Claim 16 of the '946 patent further requires "conductive lines in said series of second trenches and said first trench, wherein upper surfaces of said conductive lines are substantially coplanar with dummy conductor upper surfaces." On information and belief, the upper surfaces of the conductive lines in the '946 Accused Products are substantially coplanar with the dummy conductor upper surfaces. For example, the upper surfaces of the copper-based interconnects are substantially coplanar with the upper surfaces of the dummy conductors.

52. NVIDIA has actively, knowingly, and intentionally induced infringement of at least claim 16 of the '946 patent in violation of 35 U.S.C. § 271(b). On information and belief, NVIDIA, knowing its products infringe the '946 patent and with the specific intent for others to infringe the '946 patent, has actively encouraged third parties, including OEMs, ODMs, system builders, add-in board manufacturers ("AIBs"), and retailers/distributors, to sell, offer for sale, use, and/or import into the United States, without license or authority, '946 Accused Products



and/or products containing '946 Accused Products. For example, NVIDIA published and provided marketing materials, technical specifications, datasheets, user manuals, and development and testing resources on its website (<http://www.nvidia.com/>) that instructed and encouraged third parties to integrate the '946 Accused Products into products sold, offered for sale, used, and/or imported into the United States and encouraged NVIDIA's customers to purchase and use those products in the United States. *E.g.*, <https://web.archive.org/web/20150506104826/http://www.geforce.com/hardware/compare-buy-gpus> (archived: May 6, 2015); <https://web.archive.org/web/20150821070328/http://www.nvidia.com/object/tegra.html> (archived: August 21, 2015). NVIDIA has also established the "NVIDIA Partner Network" to assist customers with marketing, training, sales and distribution, and service and support. *E.g.*, <https://web.archive.org/web/20150819100649/http://www.nvidia.com/object/nvidia-partner-network.html> (archived: August 19, 2015). These activities were designed to bring NVIDIA's infringing products to market in the United States.

53. Plaintiffs are entitled to recover from NVIDIA all damages that Plaintiffs have sustained as a result of NVIDIA's infringement of the '946 patent, including, without limitation, not less than a reasonable royalty.

54. NVIDIA's infringement of the '946 patent has been willful and deliberate, entitling Plaintiffs to enhanced damages and attorneys' fees.

**COUNT III**  
**INFRINGEMENT OF U.S. PATENT NO. 7,064,005**

55. Plaintiffs incorporate by reference the allegations set forth in paragraphs 1 through 54 as though fully set forth herein.

56. On June 20, 2006, the USPTO duly and legally issued the '005 patent, titled "Semiconductor Apparatus and Method of Manufacturing Same," naming Yuji Takaoka as the inventor. A true and correct copy of the '005 patent is attached hereto as Exhibit C.

57. Tessera Advanced Technologies, Inc. owns the entire right, title, and interest in and to the '005 patent, including the right to sue and recover damages, including damages for past infringement.

58. Plaintiffs have complied with applicable requirements of 35 U.S.C. § 287(a), which entitles Plaintiffs to receive damages for past infringement.

59. Since at least the filing of this Complaint, NVIDIA has had knowledge of the '005 patent and that its activities infringe the '005 patent. In addition, since at least the filing of this Complaint, NVIDIA has known or should have known that its customers, distributors, and other purchasers of the '005 Accused Products are infringing the '005 patent.

60. NVIDIA has infringed, either literally or under the doctrine of equivalents, at least claim 1 of the '005 patent in violation of at least 35 U.S.C. § 271(b) and/or (g) by making, having made, using, selling, offering for sale, and/or importing into the United States products that infringe the '005 patent.

61. Based on the information presently available to it, Plaintiffs allege that NVIDIA's CoWoS GPUs, including the Tesla P100 and Tesla V100, are exemplary devices that infringe at least claim 1 of the '005 patent. The infringing products identified in this paragraph, all NVIDIA products that are substantially similar to these products, and products containing the same are referred to collectively as the "'005 Accused Products." Plaintiffs make this preliminary identification of infringing products and infringed claims without the benefit of discovery or claim construction in this action, and expressly reserve the right to augment, supplement, and

revise this identification of infringing products based on additional information obtained through discovery or otherwise.

62. Claim 1 of the '005 patent recites a "method of manufacturing a semiconductor apparatus constituting a multichip module wherein a plurality of device chips are flip-chip mounted on an interposer substrate[.]" On information and belief, the '005 Accused Products comprise a semiconductor apparatus constituting a multichip module wherein a plurality of device chips are flip-chip mounted on an interposer substrate. For example, the '005 Accused Products comprise a passive silicon interposer with a GP100 chip and four memory stacks, each including a base die, flip-chip mounted on the interposer.

63. Claim 1 of the '005 patent requires "a first step for forming an embedded electrode by filling a contact hall penetrating through a wafer with conductor, said wafer being a base material of said interposer substrate[.]" On information and belief, the '005 Accused Products comprise an embedded electrode that was formed by filling a contact hall penetrating through a wafer with conductor, said wafer being a base material of said interposer substrate. For example, the '005 Accused Products comprise a passive silicon interposer that includes embedded electrodes passing through it. The passive silicon interposer was created from a wafer of silicon, the base material of the interposer substrate.

64. Claim 1 of the '005 patent further requires "a second step for forming wiring including a connection electrode connected to a first end of the embedded electrode and a connection electrode on which said device chips to be flip-chip mounted on a surface of said wafer[.]" On information and belief, the '005 Accused Products comprise wiring including a connection electrode connected to a first end of the embedded electrode and a connection electrode on which said device chips to be flip-chip mounted on a surface of said wafer. For

example, the '005 Accused Products comprise a passive silicon interposer that has wiring including a connection electrode on its upper surface (in the finished part) connected to an embedded electrode. The device chips are flip-chip mounted on the connection electrode.

65. Claim 1 of the '005 patent further requires "a third step for forming said interposer substrate by grinding and polishing a back surface of said wafer until a second end of said embedded electrode is exposed after said plurality of device chips are flip-chip mounted on said connection electrode formed in the second step[.]" On information and belief, the '005 Accused Products comprise an interposer substrate formed by grinding and polishing a back surface of said wafer until a second end of said embedded electrode is exposed after said plurality of device chips are flip-chip mounted on said connection electrode formed in the second step. For example, the '005 Accused Products comprise a passive silicon interposer that has been formed by grinding and polishing the lower surface (in the finished part) in order to expose the second end of the embedded electrode.

66. Claim 1 of the '005 patent further requires "a fourth step for providing a bump electrode on the second end of said embedded electrode exposed in the third step[.]" On information and belief, the '005 Accused Products comprise a bump electrode provided on the second end of said embedded electrode exposed by grinding and polishing. For example, the '005 Accused Products comprise a bump electrode on the end of the embedded electrode exposed on the lower surface (in the finished part) of the passive silicon interposer.

67. NVIDIA has imported into the United States, or offered to sell, sell, or used within the United States, the '005 Accused Products, knowing that such products are made by a process covered by at least claim 1 of the '005 patent, in violation of 35 U.S.C. § 271(g). For example, NVIDIA has offered to sell the '005 Accused Products in the United States through

NVIDIA's website, <https://www.nvidia.com/en-us/data-center/dgx-1> ("Order NVIDIA DGX Today"). The infringing semiconductor chips of the '005 Accused Products are neither materially changed by subsequent processes nor become trivial and nonessential components of another product.

68. Since at least the filing of this Complaint, NVIDIA has actively, knowingly, and intentionally induced infringement of at least claim 1 of the '005 patent in violation of 35 U.S.C. § 271(b). On information and belief, NVIDIA, knowing its products infringe the '005 patent and with the specific intent for others to infringe the '005 patent, has actively encouraged third parties, including OEMs, ODMs, system builders, add-in board manufacturers ("AIBs"), automotive suppliers, and retailers/distributors, to sell, offer for sale, use, and/or import into the United States, without license or authority, '005 Accused Products and/or products containing '005 Accused Products made by a process patented in the United States. For example, NVIDIA publishes and provides marketing materials, technical specifications, datasheets, user manuals, and development and testing resources on its website (<http://www.nvidia.com/>) that instruct and encourage third parties to integrate the '005 Accused Products into products sold, offered for sale, used, and/or imported into the United States and encourage NVIDIA's customers to purchase and use those products in the United States. *E.g.*, <https://www.nvidia.com/en-us/data-center/tesla-p100/>; <https://www.nvidia.com/en-us/data-center/tesla-v100/>. NVIDIA has also established the "NVIDIA Partner Network" to assist customers with marketing, training, sales and distribution, and service and support. *E.g.*, <https://www.nvidia.com/en-us/about-nvidia/partners/>. These activities are designed to bring NVIDIA's infringing products to market in the United States.

69. Plaintiffs are entitled to recover from NVIDIA all damages that Plaintiffs have sustained as a result of NVIDIA's infringement of the '005 patent, including, without limitation, not less than a reasonable royalty.

**COUNT IV**  
**INFRINGEMENT OF U.S. PATENT NO. 6,317,333**

70. Plaintiffs incorporate by reference the allegations set forth in paragraphs 1 through 69 as though fully set forth herein.

71. On November 13, 2001, the USPTO duly and legally issued the '333 patent, titled "Package Construction of Semiconductor Device," naming Shinji Baba as the inventor. A true and correct copy of the '333 patent is attached hereto as Exhibit D.

72. Tessera Advanced Technologies, Inc. owns the entire right, title, and interest in and to the '333 patent, including the right to sue and recover damages, including damages for past infringement.

73. Plaintiffs have complied with applicable requirements of 35 U.S.C. § 287(a), which entitles Plaintiffs to receive damages for past infringement.

74. By at least October 13, 2014, Plaintiffs disclosed the existence of the '333 patent to NVIDIA and explained, in the form of claim charts, how certain exemplary NVIDIA devices infringe one or more claims of the '333 patent. Thus, since at least October 13, 2014, NVIDIA has had knowledge of the '333 patent and that its activities infringe the '333 patent. In addition, since at least October 13, 2014, NVIDIA has known or should have known that its customers, distributors, and other purchasers of the '333 Accused Products were infringing the '333 patent.

75. NVIDIA has infringed, directly and/or indirectly, either literally or under the doctrine of equivalents, at least claim 1 of the '333 patent in violation of at least 35 U.S.C.



§ 271(a) and/or (b) by making, having made, using, selling, offering for sale, and/or importing into the United States products that infringe the '333 patent.

76. Based on the information presently available to it, Plaintiffs allege that NVIDIA's Tesla K10 Server Accelerator Card and Grid K2 Graphics Card, and MSI's GeForce GTX 750 Ti Graphics Card devices, are exemplary devices that infringe at least claim 1 of the '333 patent. The infringing products identified in this paragraph, all NVIDIA products that are substantially similar to these products, and products containing the same are referred to collectively as the "'333 Accused Products." Plaintiffs make this preliminary identification of infringing products and infringed claims without the benefit of discovery or claim construction in this action, and expressly reserve the right to augment, supplement, and revise this identification of infringing products based on additional information obtained through discovery or otherwise.

77. Claim 1 of the '333 patent requires "a ball grid array (BGA) substrate including an upper insulating layer comprising a plurality of laminated layers, an intermediate insulating layer, and a lower insulating layer comprising a plurality of laminated insulating layers[.]" On information and belief, the '333 Accused Products comprise a BGA substrate including an upper insulating layer comprising a plurality of laminated layers, an intermediate insulating layer, and a lower insulating layer comprising a plurality of laminated insulating layers. For example, the '333 Accused Products comprise a GPU semiconductor device in a BGA substrate package, wherein the BGA substrate includes an insulating core layer and upper and lower insulating layers, wherein each of the upper and lower insulating layers includes multiple laminated layers.

78. Claim 1 of the '333 patent further requires "a plurality of lines on top surfaces of the insulating layers included in each of the upper, intermediate, and lower layers, respectively[.]" On information and belief, the '333 Accused Products comprise a plurality of

lines on top surfaces of the insulating layers included in each of the upper, intermediate, and lower layers, respectively. For example, the '333 Accused Products comprise multiple interconnect traces located on the top surfaces of each of the upper insulating layer, intermediate core layer, and lower insulating layer.

79. Claim 1 of the '333 patent further requires "a plurality of solder balls disposed on an outermost surface of the lower insulating layer[.]" On information and belief, the '333 Accused Products comprise a plurality of solder balls disposed on an outermost surface of the lower insulating layer. For example, the '333 Accused Products comprise BGA solder balls arranged on a bottom surface of the lower insulating layer, which are used for soldering when mounting the package to a circuit board.

80. Claim 1 of the '333 patent further requires "a semiconductor chip having a plurality of electrodes connected to respective lines, the semiconductor chip being connected electrically to the plurality of solder balls through a plurality of via holes in each of the upper, lower, and intermediate insulating layers[.]" On information and belief, the '333 Accused Products comprise a semiconductor chip having a plurality of electrodes connected to respective lines, the semiconductor chip being connected electrically to the plurality of solder balls through a plurality of via holes in each of the upper, lower, and intermediate insulating layers. For example, the '333 Accused Products comprise a GPU semiconductor chip having a plurality of flip-chip solder bumps connected to interconnect traces, the semiconductor chip being electrically connected to the BGA solder balls through vias formed in each of the upper insulating layer, intermediate core layer, and lower insulating layer.

81. Claim 1 of the '333 patent further recites that "the intermediate insulating layer is a material having thermal expansion characteristics substantially matching thermal expansion

characteristics of a circuit board, the semiconductor device being mounted on the circuit board, and the upper and lower insulating layers have thermal expansion characteristics different from but similar to that of the intermediate insulating layer so that interlayer peeling of the BGA substrate is prevented[.]” On information and belief, the ‘333 Accused Products comprise an intermediate insulating layer that is a material having thermal expansion characteristics substantially matching thermal expansion characteristics of a circuit board, the semiconductor device being mounted on the circuit board, and the upper and lower insulating layers having thermal expansion characteristics different from but similar to that of the intermediate insulating layer so that interlayer peeling of the BGA substrate is prevented. For example, the coefficient of thermal expansion (“CTE”) of the intermediate core layer substantially matches the CTE of the circuit board to which the semiconductor device is mounted, and the CTEs of the upper and lower build-up layers is different from but similar to the CTE of the intermediate core layer, which prevents interlayer peeling of the substrate.

82. NVIDIA has actively, knowingly, and intentionally induced infringement of at least claim 1 of the ‘333 patent in violation of 35 U.S.C. § 271(b). On information and belief, NVIDIA, knowing its products infringe the ‘333 patent and with the specific intent for others to infringe the ‘333 patent, has actively encouraged third parties, including OEMs, ODMs, system builders, add-in board manufacturers (“AIBs”), and retailers/distributors, to make, have made, use, sell, offer for sale, and/or import into the United States, without license or authority, ‘333 Accused Products and/or products containing ‘333 Accused Products. For example, NVIDIA published and provided marketing materials, technical specifications, datasheets, user manuals, and development and testing resources on its website (<http://www.nvidia.com/>) that instructed and encouraged third parties to integrate the ‘333 Accused Products into products sold, offered

for sale, used, and/or imported into the United States and encouraged NVIDIA's customers to purchase and use those products in the United States. *E.g.*, <http://web.archive.org/web/20150910180943/http://www.nvidia.com/object/grid-enterprise-resources.html#datasheets> (archived: Sept. 10, 2015); <http://web.archive.org/web/20150907121006/http://www.nvidia.com/object/tesla-supercomputing-solutions.html> (archived: Sept. 7, 2015). NVIDIA has also established the "NVIDIA Partner Network" to assist customers with marketing, training, sales and distribution, and service and support. *E.g.*, <https://web.archive.org/web/20150819100649/http://www.nvidia.com/object/nvidia-partner-network.html> (archived: August 19, 2015). These activities were designed to bring NVIDIA's infringing products to market in the United States.

83. Plaintiffs are entitled to recover from NVIDIA all damages that Plaintiffs have sustained as a result of NVIDIA's infringement of the '333 patent, including, without limitation, not less than a reasonable royalty.

84. NVIDIA's infringement of the '333 patent has been willful and deliberate, entitling Plaintiffs to enhanced damages and attorneys' fees.

**COUNT V**  
**INFRINGEMENT OF U.S. PATENT NO. 5,666,046**

85. Plaintiffs incorporate by reference the allegations set forth in paragraphs 1 through 84 as though fully set forth herein.

86. On September 9, 1997, the USPTO duly and legally issued the '046 patent, titled "Reference Voltage Circuit Having a Substantially Zero Temperature Coefficient," naming David Mietus as the inventor. A true and correct copy of the '046 patent is attached hereto as Exhibit E.

87. Tessera Advanced Technologies, Inc. owns the entire right, title, and interest in and to the '046 patent, including the right to sue and recover damages, including damages for past infringement.

88. Plaintiffs have complied with applicable requirements of 35 U.S.C. § 287(a), which entitles Plaintiffs to receive damages for past infringement.

89. By at least February 11, 2015, Plaintiffs disclosed the existence of the '046 patent to NVIDIA and explained, in the form of claim charts, how certain exemplary NVIDIA devices infringe one or more claims of the '046 patent. Thus, since at least February 11, 2015, NVIDIA has had knowledge of the '046 patent and that its activities infringe the '046 patent. In addition, since at least February 11, 2015, NVIDIA has known or should have known that its customers, distributors, and other purchasers of the '046 Accused Products were infringing the '046 patent.

90. NVIDIA has infringed, directly and/or indirectly, either literally or under the doctrine of equivalents, at least claim 20 of the '046 patent in violation of at least 35 U.S.C. § 271(a) and/or (b) by making, having made, using, selling, offering for sale, and/or importing into the United States products that infringe the '046 patent.

91. Based on the information presently available to it, Plaintiffs allege that NVIDIA's Kepler GK107 GPU and Tegra 3 devices are exemplary devices that infringe at least claim 20 of the '046 patent. The infringing products identified in this paragraph, all NVIDIA products that are substantially similar to these products, and products containing the same are referred to collectively as the "'046 Accused Products.'" Plaintiffs make this preliminary identification of infringing products and infringed claims without the benefit of discovery or claim construction in this action, and expressly reserve the right to augment, supplement, and revise this identification of infringing products based on additional information obtained through discovery or otherwise.

92. Claim 20 of the '046 patent requires "a method for generating an output voltage having a substantially zero temperature coefficient[.]" On information and belief, the '046 Accused Products comprise a method for generating an output voltage having a substantially zero temperature coefficient.

93. Claim 20 of the '046 patent requires "generating a first current having a positive temperature coefficient in accordance with a voltage difference across a set of p-n junctions[.]" On information and belief, the '046 Accused Products comprise generating a first current having a positive temperature coefficient in accordance with a voltage difference across a set of p-n junctions. For example, the '046 Accused Products comprise a first current generation circuit using two p-n junctions having different areas to generate a current having a positive temperature coefficient.

94. Claim 20 of the '046 patent requires "generating a second current having a negative temperature coefficient in accordance with a voltage across a p-n junction of the set of p-n junctions[.]" On information and belief, the '046 Accused Products comprise generating a second current having a negative temperature coefficient in accordance with a voltage across a p-n junction of the set of p-n junctions. For example, the '046 Accused Products comprise a second current generation circuit that uses one of the p-n junctions from the first current generation circuit to generate a current having a negative temperature coefficient.

95. Claim 20 of the '046 patent requires "summing the first and second currents to provide an output current having a substantially zero temperature coefficient[.]" On information and belief, the '046 Accused Products comprise summing the first and second currents to provide an output current having a substantially zero temperature coefficient. For example, the two



currents generated in the '046 Accused Products flow into a common node (are summed together) to generate an output current that has a substantially zero temperature coefficient.

96. Claim 20 of the '046 patent requires "using the output current to generate the output voltage." On information and belief, the '046 Accused Products comprise using the output current to generate the output voltage. For example, the output current in the '046 Accused Products flows through resistors to generate the output voltage.

97. NVIDIA has actively, knowingly, and intentionally induced infringement of at least claim 20 of the '046 patent in violation of 35 U.S.C. § 271(b). On information and belief, NVIDIA, knowing its products infringe the '046 patent and with the specific intent for others to infringe the '046 patent, actively encouraged third parties, including OEMs, ODMs, system builders, add-in board manufacturers ("AIBs"), and retailers/distributors, to make, have made, use, sell, offer for sale, and/or import into the United States, without license or authority, '046 Accused Products and/or products containing '046 Accused Products. For example, NVIDIA published and provided marketing materials, technical specifications, datasheets, user manuals, and development and testing resources on its website (<http://www.nvidia.com/>) that instructed and encouraged third parties to integrate the '046 Accused Products into products sold, offered for sale, used, and/or imported into the United States and encouraged NVIDIA's customers to purchase and use those products in the United States. *E.g.*, <https://web.archive.org/web/20150301012331/http://www.nvidia.com/object/tegra-3-processor.html> (archived: March 1, 2015); <https://web.archive.org/web/20150224072906/http://www.geforce.com/hardware/desktop-gpus/geforce-gtx-650> (archived: Feb. 24, 2015). NVIDIA also established the "NVIDIA Partner Network" to assist customers with marketing, training, sales and distribution, and service and support. *E.g.*, <https://web.archive.org/web/20150228130644/http://www.nvidia.com/object/>

[nvidia-partner-network.html](#) (archived: Feb. 28, 2015). These activities were designed to bring NVIDIA's infringing products to market in the United States.

98. Plaintiffs are entitled to recover from NVIDIA all damages that Plaintiffs have sustained as a result of NVIDIA's infringement of the '046 patent, including, without limitation, not less than a reasonable royalty.

99. NVIDIA's infringement of the '046 patent has been willful and deliberate, entitling Plaintiffs to enhanced damages and attorneys' fees.

#### **JURY DEMAND**

100. Plaintiffs demand a jury trial as to all issues that are triable by a jury in this action.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs respectfully pray for relief as follows:

- (a) Judgment that NVIDIA is liable for infringement and/or inducing infringement of one or more claims of the Asserted Patents;
- (b) Compensatory damages in an amount according to proof, and in any event no less than a reasonable royalty;
- (c) Treble damages for willful infringement pursuant to 35 U.S.C. § 284;
- (d) Pre-judgment interest;
- (e) Post-judgment interest;
- (f) Attorneys' fees based on this being an exceptional case pursuant to 35 U.S.C. § 285, including pre-judgment interest on such fees;
- (g) An accounting and/or supplemental damages for all damages occurring after any discovery cutoff and through final judgment;
- (h) Costs and expenses; and
- (i) Any and all other relief that the Court deems just and proper.

Dated: May 8, 2019

Respectfully submitted,

FARNAN LLP

Of Counsel:

Michael K. Plimack (mplimack@cov.com)  
Nitin Subhedar (nsubhedar@cov.com)  
COVINGTON & BURLING LLP  
Salesforce Tower  
415 Mission Street  
San Francisco, CA 94105-2533  
Telephone: (415) 591-6000  
Facsimile: (415) 591-6091

Robert T. Haslam (rhaslam@cov.com)  
Thomas E. Garten (tgarten@cov.com)  
COVINGTON & BURLING LLP  
3000 El Camino Real  
5 Palo Alto Square  
Palo Alto, CA 94306-2112  
Telephone: (650) 632-4700  
Facsimile: (650) 632-4800

Matthew Phelps (mphelps@cov.com)  
COVINGTON & BURLING LLP  
The New York Times Building  
620 Eighth Avenue  
New York, NY 10018-1405  
Telephone: (212) 841-1000  
Facsimile: (212) 841-1010

/s/ Michael J. Farnan

Brian E. Farnan (Bar No. 4089)  
Michael J. Farnan (Bar No. 5165)  
919 North Market Street, 12th Floor  
Wilmington, DE 19801  
Telephone: (302) 777-0300  
Facsimile (302) 777-0301  
bfarnan@farnanlaw.com  
mfarnan@farnanlaw.com